DX ENGINEERING®

# Amateur Radio Products Autumn/Winter 2017

FREE Standard Shipping on Most Orders Over $99

## All Techs on Deck!

**Our technical staff collaborated on a complex switching and filtering system for the new beam antennas and retail store Amateur Radio display. Details Inside!**

**DXENGINEERING.COM 800-777-0703**

The Industry's Most Powerful Website | World-Class Products Shipped Worldwide

**Butternut Antenna | Comtek | Cycle 24 | TransWorld Antenna**

CQ DX!

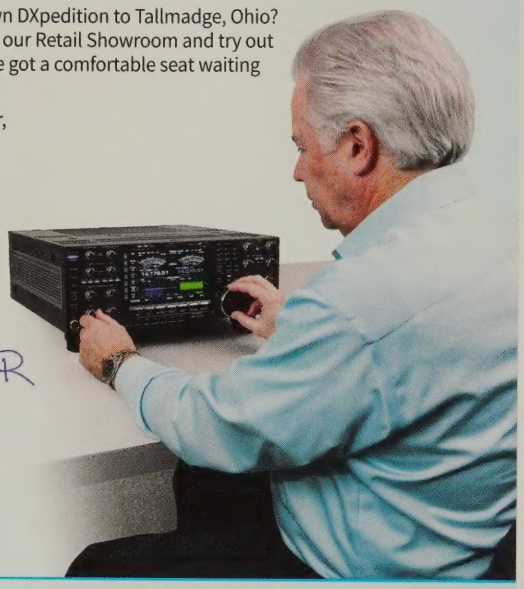
It's certainly an exciting time to be part of the world's best hobby! Contesting and DXing season is in full swing. There's an array of new products inside this catalog to take your station to the next level. And the much-anticipated DXpedition to Bouvet Island is only a few months away, followed by Baker Island in June 2018. Is your station ready for these rare contacts? If not, we're here to lend a hand.

Whether you're a novice, a seasoned operator, or someone looking to rekindle your interest in Amateur Radio, rest assured that you have a good friend here at DX Engineering. Our goal is to provide you with more than a huge assortment of high quality gear and fast shipping right to your shack. You also get expert advice and technical support from people who care about Ham Radio as much as you do. Our involvement in the Bouvet Island DXpedition (page 123) is typical of the kind of cooperation that makes the Ham community such a close-knit group. We share the passion for exploring the endless nuances of our hobby—and have a great time in the process. You will hear our DX Engineering team in the pile ups!

Thinking of making your own DXpedition to Tallmadge, Ohio? Let me invite you to stop by our Retail Showroom and try out our upgraded station. We've got a comfortable seat waiting for you!

I hope to hear you on the air,

73,
Tim K3LR



**Tim Duffy K3LR**

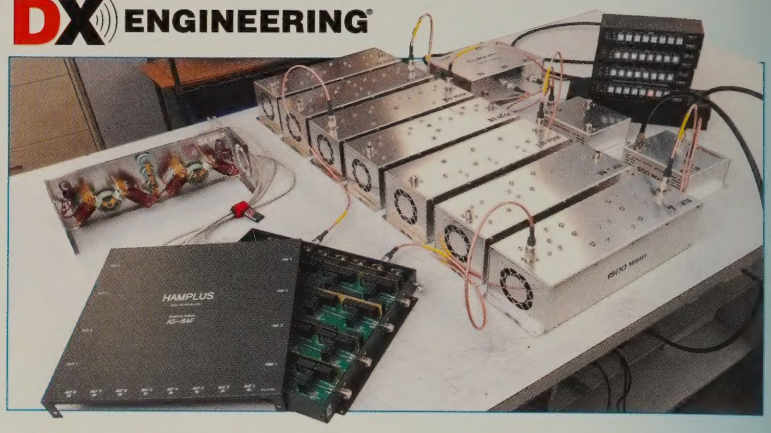
Chief Operating Officer and General Manager

***Isaiah 41:10*** *Do not fear, for I am with you; do not be afraid, for I am your God. I will strengthen you; I will help you; I will hold on to you with My righteous right hand.*

### *HF in Five Minutes? See it in DXEngineering.com's Video Library!*

We put together videos on a lot of our products so you can see them in action. Want proof that a TransWorld Antenna can get set up in five minutes? Watch DX Engineering team member Cory W3CDG make it happen. Plus you can find dozens of more product reviews and demonstration videos online. Visit the "Tech Info & News" section of DXEngineering.com and then look for the video library link to the left of the webpage.

**DX ENGINEERING**




### *All Techs on Deck!*

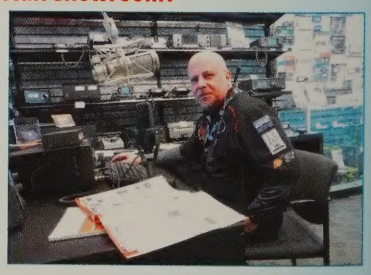
To take full advantage of our new antennas, members of the DX Engineering technical staff worked on the layout of a sophisticated system (shown on front cover) that provides seamless switching and filtering for multiple radios to operate simultaneously on different bands, even on the same antennas! Guest operators at our Retail Store can operate any band, 40 through 10 meters, using the DX Engineering Skyhawk, Skylark and the EAntennas beams installed on our tower, pictured below. **(See page 69)**

Switching any band to any radio and supporting simultaneous operations is simplified with these advanced products described in detail at DXEngineering.com:

- Hamplus Antenna Switches and Smart Controllers enable multiple transceivers to access any one of eight or twelve antenna inputs, interchangeably, one at a time. Band and frequency changes on each interfaced transceiver can automatically select the memorized antenna. **(See pages 60-61)**
- Low Band Systems (LBS) Multiplexers and Bandpass Filters allow two, three or four different bands on the same multi-band antenna to be used by multiple transceivers simultaneously. **(See page 59)**
- DX Engineering High Isolation Coaxial Cables feature double shielding for quality RF interconnections that assure minimum signal leakage and lowest possible noise ingress. **(See page 131)**

Now that DX Engineering's Retail Store transceiver display and antenna system is assembled, the only component missing is YOU—the operator! We hope you'll make plans to stop by and give it a try. Better yet, bring your friends to see you operate our station and get them interested in becoming a Ham! Also, consider installing these word-class devices in your own well-equipped shack. These systems are the perfect solution for the multi-operator Amateur Radio contesting station. You'll find all of the premium gear to make it happen at DXEngineering.com. And, as always, our Ham experts will be more than happy to help you select just the right pieces of equipment to build your dream station.

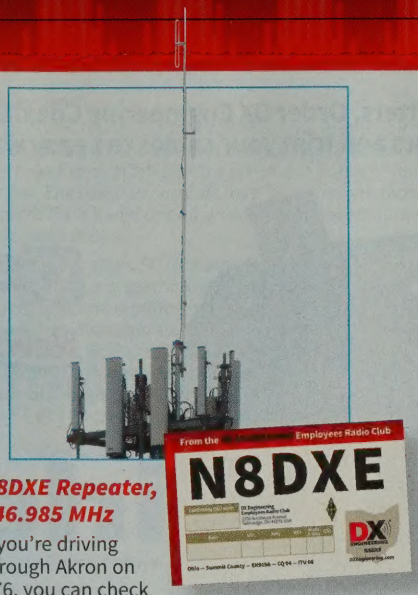
### *What's New at the DX Engineering Retail Showroom?*



We've cycled in some of the latest radios from Icom, Yaesu, Kenwood and Alinco, along with accessories from Hamplus, RM Italy and Phonema. They're all plugged in, ready to go on the air. If you haven't visited recently, stop by and get hands-on with a fresh crop of Amateur Radio gear.

Retail order pickup is available from 9 am to 9 pm, seven days a week. The showroom is fully staffed from 9 am to 5 pm, Monday through Saturday. That means you can speak with one of our team members directly for tech support and station consultations. If you're wrangling with a nagging technical issue or facing a logistical challenge with your station, talk to us. We're happy to help.

The DX Engineering Retail Showroom is located near Akron, inside the Summit Racing Retail Store at 1200 Southeast Avenue, Tallmadge, Ohio.




### *N8DXE Repeater, 146.985 MHz*

If you're driving through Akron on I-76, you can check into our repeater, 146.985 MHz, no PL. We're fortunate to have several local clubs nearby, so there's always plenty of activity. The repeater covers most of the east side of Akron, and stretches close to the Pennsylvania state line.

### *DX Engineering's Tower and HF Array*

Our 80 foot Rohn tower at DX Engineering headquarters is now in place. Atop the tower sits three HF beam antennas: an EAntenna Yagi, plus a DX Engineering Skyhawk™ and Skylark—selectable via a Hamplus antenna switching system. These antennas deliver exceptional HF performance on the 40-meter bands, and will serve as "Test Beds" for many of the products we're developing.

**The best part? You can use them too!**
Each antenna will be fed by the radios in our Retail Showroom. These new, no-compromise stations give you the rare opportunity to try out exclusive Amateur Radio gear, so you can make an educated purchase decision. If you're traveling near Akron, Ohio, stop in and get on the air—we'll gladly toss you a mic or key. Read more about it on the inside front cover!

## DX Bucks

### *Earn Rewards with Your Purchases!*

DX Bucks are like gift certificates to use on future orders from DX Engineering. When you're awarded DX Bucks, you'll get a numbered certificate in the mail about two weeks after we ship your order.

**Redeem By Phone:** Just give us your certificate number when ordering.

**Redeem By Mail:** Include the certificate number with your order.

**Redeem Online:** When checking out, you'll see a box to enter in your certificate number. Just type that number in the space and your total will change to reflect your rewards.

**DX Bucks are not redeemable for cash, can't be used to purchase gift cards, and have no value after the expiration date. If you've earned DX Bucks with a purchase and return the qualifying product for credit, then you forfeit the DX Bucks reward. If you exchange one qualifying item for another qualifying item, you only get one DX Bucks reward. DX Engineering reserves the right to cancel or reject DX Bucks certificates obtained fraudulently.**

**Check DXEngineering.com for the latest deals!**

### WARNING

**Proposition 65 Compliance Statement:**

It is the responsibility of DX Engineering to warn its customers and employees that some products sold in this catalog contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Go to DXEngineering.com/Go/FAQs-DXE-Prop65 for more information.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DX ENGINEERING®

# DX ENGINEERING®

**Stop fighting with knives and box cutters. Order DX Engineering Coaxial Cable Prep Tools for Crimp Connectors and trim your cables the easy way.**

### *DX Engineering Introduces New Coaxial Prep Tool Kit for Crimp Connectors*

DX Engineering now offers an easy way to precisely prepare coaxial cable ends for RF crimp connectors. Its Coaxial Cable Prep Tool Kit for Crimp Connectors (DXE-UT-KIT-CC1) contains everything Amateur Radio enthusiasts need for professional-quality cutting, stripping and trimming of cable ends.

The kit includes 4 coaxial cable strippers, grippers for 8X and 213-size coaxial cables, 10 replacement blades, side cutter braid trimmers, CHANNELLOCK cable cutters and a custom carrying case.

The hinged strippers allow users to insert a coax against an internal stop, close the tool, and rotate to cut the cable to the correct measurement using three internal blades. The cable is reinserted into the other end and then withdrawn for simple removal of the cut portion.

The strippers will prepare 400MAX, 8U, 213U, LMR-400, 8X and LMR-240-size cables for installation of crimp-style PL-259, N Type and BNC connectors. These tools are designed to prepare cables only for DX Engineering and Amphenol® crimp connectors. See connector compatibility in the table below.

DX Engineering also offers an all-in-one crimping solution. The Ultra-Crimp 2 Crimp Connector Kit (DXE-UT-KIT-CRMP2) crimps 0.405 inch and 0.240 inch families of connectors, as well as three sizes of Anderson Power Poles®—15A, 30A and 45A.

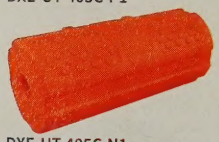
New!

| Part Number | Cable Type | Connector Type | Price |
|---|---|---|---|
| DXE-UT-240C-N1 | 8X (0.242" OD) | Type-N and BNC | **$39.95** |
| DXE-UT-240C-P1 | 8X (0.242" OD) | PL-259 | **$39.95** |
| DXE-UT-405C-N1 | 8U/400 (0.405" OD) | Type-N and BNC | **$39.95** |
| DXE-UT-405C-P1 | 8U/400 (0.405" OD) | PL-259 | **$39.95** |

| Part Number | Description | Price |
|---|---|---|
| DXE-170M | Precision Braid Trimmer | **$11.25** |
| CNL-911 | Coaxial Cable Shears | **$22.97** |
| DXE-UT-RB-CC1 | 10 Pack of Spare Cutting Blades | **$10.95** |
| DXE-CGH-8U | Red Coaxial Cable Gripper Tool for RG-213 Sized Coaxial Cable | **$14.95** |
| DXE-CGH-8X | Green Coaxial Cable Gripper Tool for 8X Sized Coaxial Cable | **$14.95** |
| DXE-UT-CC1-CASE | Custom Hard Plastic Carry Case with Custom Cut Foam Insert | **$43.95** |
| DXE-UT-KIT-CC1 | Complete Kit with Tools and Case | **$249.95** |

DXE-UT-405C-P1

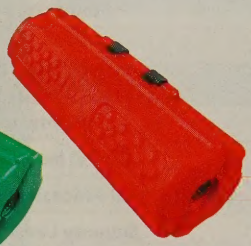
DXE-UT-240C-P1



DXE-UT-405C-N1

DXE-UT-240C-N1

DXE-CGH-8X



DXE-CGH-8U

CNL-911

DXE-170M

| | DXE-UT-405C-P1 Dark Red | | | DXE-UT-240C-P1 Spruce Green | | DXE-UT-405C-N1 Orange | | DXE-UT-240C-N1 Fluorescent Green | |
|---|---|---|---|---|---|---|---|---|---|
| Connector Type | PL-259 | | | PL-259 | | Type N | | Type N | BNC |
| Connector Part Number | DXE-PL259CS8U | AMP-182102 | AMP-182130-10 | DXE-PL259CS8X | AMP-182115-10 | AML-172102 | AMP-172102H243 | AMP-172135 | AML-112533 |
| | | | | | | | | | |
| Use Die DXE-UT- | DIE-8U | DIE-8U | DIE-8U | DIE-8X | DIE-8X | DIE-8U | DIE-8U | DIE-8X | DIE-8X |
| Hex Crimp Center Pin | Solder Pin | 0.100 | 0.118 | Solder Pin | 0.068 | 0.100 | 0.118 | 0.100 | 0.068 |
| Hex Crimp Ferrule | 0.429 | 0.429 | 0.429 | 0.255 | 0.255 | 0.429 | 0.429 | 0.255 | 0.255 |

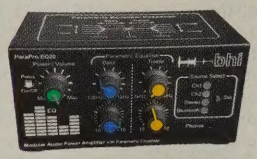
### SOTAbeams

For exceptional products that will take your Amateur Radio experience outside the confines of the shack, SOTAbeams delivers results from folks with a lifetime of portable radio expertise. The company uses its love for adventure radio to help outfit Ham Radio operators with the ideal equipment for outdoor operations.

DX Engineering offers SOTAbeams' WSPRlite Propagation and Antenna Tester, a breakthrough system that allows you to see how your antenna is performing in real-time and in its actual location. Also available are the WSPRlite Power Conditioner Kit and Enclosure; WSPRlite 160, 80 and 40 Meter Add-on Kit; and USB Battery Pack Keep-Alive Load Kit—details on page 117. Also see SOTAbeams' LASERBEAM Audio Filter Module for the Yaesu FT-817 on page 15.

New!

bhi Noise Cancellation Products



New!

### ParaPro EQ20

Make a sound decision for your shack with bhi's new ParaPro units. They combine a robust parametric EQ with a 20 watt amplifier, plus a host of intuitive features to fine-tune your radio for better voice copy. Find them on page 27.

INRAD international radio

New!

### Microphones

INRAD has just introduced a line of quality microphones boasting performance and value for Hams at every level. Each one has its own specialized dynamic element and unique style. They all come with a 3-pin XLR to 1/8" adapter cable for easy hookup. See page 33 for INRAD Microphones and Accessories.

DX ENGINEERING

New!

### Surge Arrestors

Rely on DX Engineering Surge Arrestors for dependable protection against voltage spikes at a price that won't shock your system. They cover 1.5 to 700 MHz and handle up to 2,000 watts. Great insurance when lightning strikes. See page 104 for more details.

### Coming Soon - Hummelmasten Mini XL Tower

Hummelmasten started as a family business in Minden, Germany in 1978. Today, the company continues to rise to new heights, producing mast systems that reflect its creativity, craftsmanship and focus on finding solutions to unique customer needs.

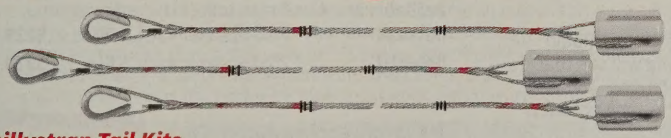
Hummelmasten is recognized worldwide for its quality designed and finely constructed antenna towers. DX Engineering will be offering its 29' Mini XL, one of the company's signature towers and an ideal choice for Hams. Made from high-strength aluminum, the tower requires no concrete base but is made to handle all kinds of weather conditions. It makes a good choice for medium beam and VHF antenna use. Look for the Mini XL soon at DXEngineering.com.

Ciro Mazzoni Radiocomunicazioni

### Ciro Mazzoni Baby and Midi Loop Antennas

Founded in Verona, Italy, Ciro Mazzoni Radiocomunicazioni has been a trusted global supplier of professional-quality radio communications equipment for more than 40 years. DX Engineering is excited to announce that it will be offering Ciro Mazzoni's popular magnetic Baby Loop and Midi Loop antennas. Compact, quiet and easy to install, the sturdy Baby Loop (6.6-29.8 MHz) and Midi Loop (3.5-14.5 MHz) are designed and manufactured to meet the highest standards for performance and reliability. Look for them at DXEngineering.com.

DX ENGINEERING PHILLYSTRAN



### Phillystran Tail Kits

Using a steel tail to terminate your non-metallic guy line is a smart way to protect it from damage—whether its from vandals, brush fires, lawn mowers, fertilizers or ambitious rodents. As recommended by Phillystran, DX Engineering assembled kits to make it easy to install or upgrade your guying system. The kits include 12 feet of galvanized steel guy line, a porcelain strain insulator, Big Grips (for the dead end only), a heavy duty thimble and cable ties. You supply the guy line and appropriate Big Grip. See available kits on page 80. Find individual sets at DXEngineering.com.

New!

DX ENGINEERING

ICOM HEIL SOUND BUCKMASTER ALINCO Nifty! Ham Accessories NANUK

### IC-7300 Basic Package

We created a package using the most common accessories new IC-7300 owners want. It's a perfect starter set for folks who want to get active on HF, without a lot of equipment-matching guesswork.

The package includes:

- Icom IC-7300 HF Plus 50 MHz Transceiver
- Buckmaster 80-6M OCF Dipole Antenna
- 100' of DX Engineering RG-8X Coax
- DX Engineering Foot Switch
- Heil Pro Set Headset
- NANUK Wheeled Case
- Nifty Mini-Manual
- Alinco Digital Power Supply

DXE-HF7300-BASIC IC-7300 Basic Package..... **$2,342.15**

New!

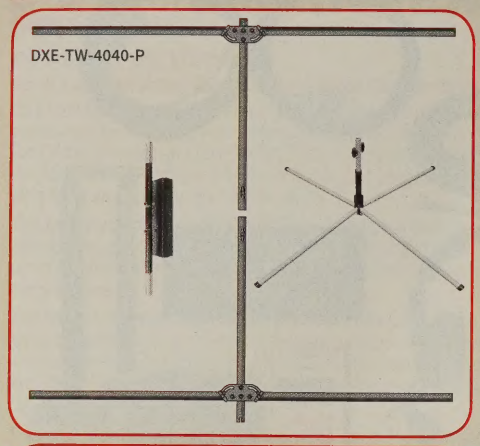
DX ENGINEERING

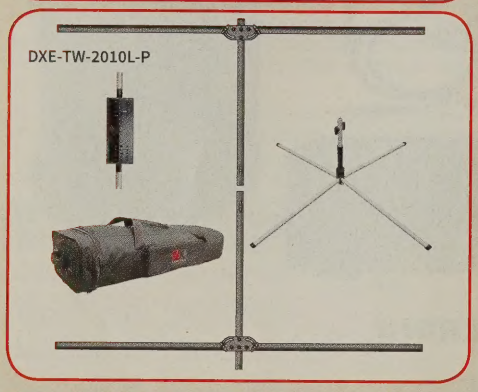
### Portable Canopy Shelter

Going into the field or to a Hamfest? Protect yourself and your gear from rain and sun with this durable 10' x 10' canopy. It's made from black polyester fabric supported by a rugged metal frame. Better still, the canopy collapses down into an included carrying bag for easy transport.

DXE-CANOPY Portable Canopy Shelter..... **$129.95**

DX ENGINEERING




### TransWorld Antenna Packages

If you enjoy portable HF operation, but don't enjoy lugging around a massive antenna, you should check out the TransWorld Antenna line. These antennas are small and portable, yet boast exceptional performance and durability. TransWorld Antennas are now DX Engineering products, so they're built to the same precision standards that made TransWorld Antenna a household name for HF enthusiasts.

The DX Engineering TransWorld Antenna is essentially a basic structure consisting of top, bottom and tee sections with interchangeable Array Box Center Sections that you can purchase separately for the other bands you want. There are a ton of options; to make selecting the right antenna setup easier, we've created these handy packages.

**5-Band Explorer**

This combo delivers excellent 20, 17, 15, 12 and 10 meter coverage with manual bandswitching. It includes a portable Quadrastand, basic antenna structure, and a handy travel bag.

DXE-TW-2010L-P Explorer Package..... **$624.80**

**5-Band Adventurer**

Similar to the 5-Band Explorer with the addition of automatic bandswitching. The travel bag is available separately.

DXE-TW-2010-P Adventurer Package..... **$694.80**

**Band-Specific Solo Explorer**

This monoband antenna system gives you an impressive presence on the 40 meter band. It's an extremely portable package, and comes with quadrastand and basic antenna structure components. Solo Explorers are available for the 80, 60, 40 and 30 meter bands; visit DXEngineering.com to see all the HF options.

DXE-TW-4040-P Solo Explorer Package ..... **$544.80**

**5-Band Globetrotter**

Though it's a great portable antenna, the TransWorld Antenna is actually perfect for stealthy home installation too, when paired with the TransWorld Permanent Mounting Pole that's included in this package. Like the 5-Band Adventurer, the Globetrotter features 20-10M coverage with automatic bandswitching.

DXE-TW-2010P-P Globetrotter..... **$629.80**

RigExpert®

### Zoom-in Antenna and Cable Analyzer

New!

When it comes to antenna performance, knowledge is power. RigExpert's versatile AA-35ZOOM takes the guesswork out of tuning, troubleshooting and fixing your antennas and feedlines. Use it to check your coax cable assemblies and measure a range of vital antenna stats, including SWR, impedance, return loss, and the capitance or reductance of reactive load. Results are graphically displayed on a 320 x 220 color TFT screen. Choose the zoom-in display function to view graphic points close up for even clearer analysis. It has a frequency range of 0.06 - 35 MHz and provides measurements for 25, 50, 75 and 100-ohm systems. The unit comes fitted with an SO-239 female connector. Easy-to-use measurement modes (including RigExpert's SWR2Air mode), waterproof keypad, multilingual menus and help screens, and USB link to a PC make this analyzer an indispensable tool for pros and hobbyists alike. For a chart of available RigExpert antenna analyzers, see page 116.

REU-AA-35ZOOM Antenna and Cable Analyzer; **$269.95**

New!

ACOM

### 1,500 Watt HF Linear Amplifier

The 2100 is ACOM's most user-friendly amplifier to date. It uses a powerful tuning aid and an automatic input attenuator to let you quickly match input impedance to the tube load impedance. Plus, as long as your VSWR stays under 3:1, you won't need an antenna tuner. The 2100 is packed with self-protection features and will withstand up to 400 watts of reflected power. Its resiliency makes the 2100 a good choice for Field Day, EMCOMM and base stations. The intuitive controls and OLED display contribute to the 2100's straightforward operation.

AOM-2100 1,500 Watt HF Linear Amplifier..... **$4,199.95**

New!

CLIFTON LABORATORIES

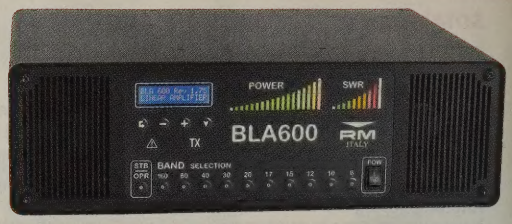
### DX Engineering Acquires Clifton Laboratories

For decades, Clifton Laboratories made preamplifiers and filters offering unparalleled performance. Under the leadership of its founder, Jack Smith K8ZOA, now that tradition of quality will continue through DX Engineering.

Jack had pushed the leading edge of Ham Radio technology, and now DX Engineering will see that his designs endure for future generations. The features and specs remain the same—the products will just be built by DX Engineering.

DX Engineering plans to manufacture Clifton Laboratories Amateur Radio products, including popular filters and preamplifiers. DX Engineering is also committed to supporting owners of Clifton Laboratories' legacy products.

**DX Engineering will have several Clifton Laboratories products available soon.**




### Wideband VHF Amplifier

RM ITALY

New!

RM Italy introduces a versatile amplifier that comes loaded with a host of Ham-friendly benefits. The BLA600 is a fully automatic wideband compact linear amplifier that covers all the HF bands and 6 meters, from 1.8 to 54 MHz. The unit delivers up to 500 watts SSB PEP and features dual MCU controls for protection against high RF input driver levels, high output VSWR, overcurrent and more. Its dual large diameter MCU-controlled multispeed fans keep it cool and running at peak efficiency. For CW QSK operation, the BLA600 provides fast and silent PIN diode switching that makes it a perfect companion in your shack. Its rugged 50V Freescale MRFE6VP5600H power transistors deliver high reliability and consistent high linear RF output. The low-noise amplifier also includes 3 user-configured teflon-insulated antenna output sockets, 2 x 16 LCD display to view amplifier status, and built-in heavy duty AC power supply.

RMY-BLA600 Wideband VHF Amplifier.... **$2,499.95**

IPR-4UM

**Installed Radios and Accessories not included.**

New!

IPR-4UM

iPortable

### Pro2 Speaker Racks

Simplify your portable or EMCOMM setup in one fell swoop. iPortable's ingenious Pro2 Speaker Rack Systems combine a rugged travel/flight case with a DC power distribution point, speaker and rack shelving. There's plenty of room for you to include a radio or two, plus a power supply and tuner.

The front panel contains a volume control, coax plugs, fuse panel, cigarette lighter port, USB ports, Powerpoles® and a headphone jack. The systems are compatible with virtually any radio setup. They're available in a 4 or 6 rack unit (RU) configuration.

IPR-4UM Pro2 Speaker Rack, 4 RU..... **$325.95**

IPR-6UM Pro2 Speaker Rack, 6 RU..... **$375.95**

### DX Engineering Super Card

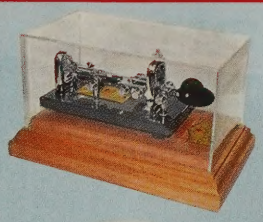
Build your dream station with the best gear. Use your DX Engineering Super Card.

Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

***See More Amateur Radio Gifts and Collectibles at DXEngineering.com***

Amateur Radio isn't just a hobby; it's a lifestyle that resonates throughout the entire Ham community. And that dedication goes beyond radios and antennas. Express a passion for Ham Radio.

**Visit DXEngineering.com to see it all.**



DXE-MBLALO-LGMNT DXE-MBLICO-TRMNT DXE-MBLKWD-MGMNT DXE-MBLYSU-TRMNT

## *Getting Started Mobile Radio Packages*

Based around your choice of a 2 meter mobile transceiver, these combos will show you what typically goes into a mobile station. There are three mounting options for each radio combo: magnet, trunk/hatch or luggage rack. Each combo also includes a 2M mobile antenna and the right coaxial cable (with installed connectors) to complete a hassle-free installation.

| Package Part Number | Radio | Antenna | Mount | Price |
|---|---|---|---|---|
| DXE-MBLALO-LGMNT | Alinco DR-B185HT | 52.4" Monoband | Luggage Rack | **$269.80*** |
| DXE-MBLALO-MGMNT | Alinco DR-B185HT | 40.2" Dual-Band | Magnet | **$268.85*** |
| DXE-MBLALO-TRMNT | Alinco DR-B185HT | 52.4" Monoband | Trunk/Hatch | **$261.80*** |
| DXE-MBLICO-LGMNT | Icom IC-2300H | 40.2" Dual-Band | Luggage Rack | **$295.80*** |
| DXE-MBLICO-MGMNT | Icom IC-2300H | 40.2" Dual-Band | Magnet | **$294.85*** |
| DXE-MBLICO-TRMNT | Icom IC-2300H | 52.4" Monoband | Trunk/Hatch | **$287.80*** |
| DXE-MBLKWD-LGMNT | Kenwood TM-281A | 52.4" Monoband | Luggage Rack | **$262.80*** |
| DXE-MBLKWD-MGMNT | Kenwood TM-281A | 40.2" Dual-Band | Magnet | **$261.85*** |
| DXE-MBLKWD-TRMNT | Kenwood TM-281A | 52.4" Monoband | Trunk/Hatch | **$254.80*** |
| DXE-MBLYSU-LGMNT | Yaesu FTM-3200DR | 52.4" Monoband | Luggage Rack | **$259.80*** |
| DXE-MBLYSU-MGMNT | Yaesu FTM-3200DR | 40.2" Dual-Band | Magnet | **$258.85*** |
| DXE-MBLYSU-TRMNT | Yaesu FTM-3200DR | 52.4" Monoband | Trunk/Hatch | **$251.80*** |

DXE-HTALO-BASIC DXE-HTICO-BASIC DXE-HTKWD-BASIC DXE-HTYSU-BASIC

## *Getting Started HT Radio Packages*

The quickest way to start enjoying your Amateur Radio license is probably with a handheld transceiver commonly referred to as an HT or "Handi-Talkie." A handheld radio is basically an all-in-one package, but there are some important accessories that make using an HT easier. Specifically, you'll want a better antenna for enhanced performance, the right programming software and cables, plus a separate earpiece/mic to make using the radio more convenient. We've done the part-matching guesswork with these Getting Started HT Radio Packages.

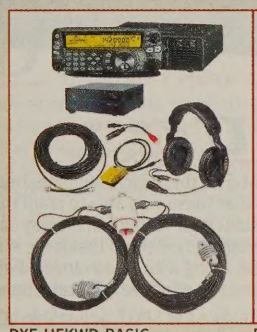
| Package Part Number | Radio | Antenna | Software/Cable Part Number | Earpiece/Mic | Price |
|---|---|---|---|---|---|
| DXE-HTALO-BASIC | Alinco DJ-500T | 15" Flexible | RTP-APK-500-USB | Speaker Mic | **$216.80*** |
| DXE-HTICO-BASIC | Icom IC-V80-SPORT | 52" Telescopic | RTP-WCS-V80-USB | Earhook Mic | **$220.80*** |
| DXE-HTKWD-BASIC | Kenwood TH-K20A | 15" Flexible | RTP-KRS-K20-USB | Headset Mic | **$234.80*** |
| DXE-HTYSU-BASIC | Yaesu FT-270R | 15" Flexible | RTP-ADMS-270-USB | Earpiece Mic | **$261.80*** |

DX ENGINEERING ALINCO KENWOOD ICOM YAESU

## *Getting Started Packages*

Building your first Ham Radio station can be overwhelming. In the Elmer spirit, we've created Getting Started Packages that illustrate what it takes to get on the air for three operating styles: base, mobile and handheld. The Packages are built around popular radios, good for beginners and experts alike. Of course, these are just suggestions and each part is available separately, so you can build your own custom combo using whatever component you want. Type "Getting Started" into the search box at DXEngineering.com to see details.

DXE-HFALO-BASIC DXE-HFICO-BASIC



DXE-HFKWD-BASIC DXE-HFYSU-BASIC

## *Getting Started Base HF Radio Packages*

Selecting the right parts for an HF station is more involved than an HT or mobile setup. DX Engineering's team of veteran operators built a quartet of Base HF Radio Packages with practically everything you need to set up your home station and get active on the HF and 6 meter bands. The packages include:

- Buckmaster OCF Dipole Wire Antenna
- 100' of DX Engineering RG-8X Coaxial Cable
- Footswitch, DXE-FS-001
- Heil Pro Set 6 Headset and Adapter Cable
- Samlex Power Supply

**Select your package below based on your radio preference.**

| | |
|---|---|
| DXE-HFALO-BASIC | Base HF Radio Package, Alinco DX-SR8T .....**CALL/WEB** |
| DXE-HFICO-BASIC | Base HF Radio Package, Icom IC-718 .....**CALL/WEB** |
| DXE-HFKWD-BASIC | Base HF Radio Package, Kenwood TS-480SAT.....**CALL/WEB** |
| DXE-HFYSU-BASIC | Base HF Radio Package, Yaesu FT-450D.....**CALL/WEB** |

***See DXEngineering.com for special promotional pricing.**

# YAESU

## Premium HF/50 MHz Transceiver

Look closely, the FTDX-5000MPL is actually two receivers in one. That's because the radio was designed to meet the demands of the high-performance contest and DXers stations. Two independent receivers means you get two Yaesu-designed 32-bit floating point DSP for VFO-A and VFO-B. Testing reveals that the FTDX5000MPL boasts incredible 112 dB dynamic range and +40 dBm, 3rd-order intercept.

Yaesu also incorporated razor-sharp selectable roofing filters and a 300 Hz filter for CW operation. Using this radio is easy too, thanks to the large screen's Practical Level Indication System that displays important settings like mic gain, RF power, CW pitch, keyer speed, processor level, VOX delay and break-in delay time. The FTDX-5000MPL features a built-in power supply, to keep your desk uncluttered.

Add the optional station monitor for the spectrum scope and stereo speakers to hear both receivers. The optional data management unit allows extended video monitoring of the spectrum and audio greyline scope, plus many other parameters.

| | | |
|---|---|---|
| YSU-FTDX-5000MPL | Limited HF/50 MHz Transceiver | **CALL/WEB** |
| YSU-SCU-21 | USB Interface Cable | **$39.95** |
| YSU-DMU-2000 | Data Management Unit; | **$1,199.95** |
| YSU-SM-5000 | Station Monitor | **$329.95** |

# YAESU

## HF/50 MHz Transceiver

Take a look at this radio's features, then visit DXEngineering.com and check out what it costs. It's tough to believe that Yaesu was able to cram this much performance into a radio at this price. The brilliant high-resolution display can be adjusted to show a spectrum scope and TX/RX frequency. Behind that large screen lies the FTDX-1200's high-speed floating point DSP, along with an advanced digital noise reduction circuit. A high performance IF DSP ensures effective QRM rejection.

Other important features include a CW SPOT, adjustable VOX delay and a built-in electronic keyer. When connected to a PC via the optional cable, you can even configure the FTDX-1200 for remote control. An optional FFT unit also enables RTT/PSK31/CW encode/decode.

| | | |
|---|---|---|
| YSU-FTDX-1200 | HF/50 MHz Transceiver | **CALL/WEB** |
| YSU-FFT-1 | FFT Unit | **$189.95** |

# YAESU

## Elite HF/50 MHz Transceiver

Truly the best of Yaesu's radios, the FTDX-9000 series are the ONLY Ham band transceivers that permit full duplex communications while operating on two different bands. That means you'll be able call CQ on 10M, while simultaneously receiving on 20M, grabbing new multipliers.

Like the FTDX-5000MPL, this radio uses two separate receivers, crafted using an ultra-quiet 400 MHz DSP. They also employ a High-Resolution DDS local oscillator, for extraordinarily low noise close to the carrier. The high-level mixers and robust IF amplifier stages are designed to yield a 3rd-order intercept point in excess of +40 dBm.

The FTDX-9000MP also employs three roofing filters for outstanding close-In dynamic range, allowing you to select (on the fly, or automatically by mode) front-end bandwidths of 15 kHz, 6 kHz, or 3 kHz. This enables you to choose the bandwidth that best matches the band and your operating mode at the time.

Two versions of this custom-built radio are available; the key difference between them is RF output power. Call for specialized assistance with your FTDX-9000 series transceiver configuration.

| | | |
|---|---|---|
| YSU-FTDX-9000-MP | 400 Watt HF/50 MHz Transceiver | **CALL/WEB** |
| YSU-FTDX-9000D | 200 Watt HF/50 MHz Transceiver | **CALL/WEB** |
| YSU-SCU-22 | USB Interface Cable | **$49.95** |

# YAESU

YSU-SP-20 YSU-SP-10

## SP-10 and SP-20 External Speakers

Capable of stunning audio reproduction well tailored to SSB and digital voice, these two all-new speakers from Yaesu are an excellent complement to your base station. Both speakers mate perfectly with a corresponding Yaesu transceiver.

| | | |
|---|---|---|
| YSU-SP-10 | Speaker for Yaesu FT-991 | **$169.95** |
| YSU-SP-20 | External Speaker for Yaesu FTDX1200, FTDX3000D | **$209.95** |

# YAESU

## Base Station External Speakers

Yaesu offers a pair of external speakers that have adjustable audio filters, so you can really fine-tune to your audio tastes. Each one also has a dual set of inputs, so you can match one speaker to two radios. Though they're tailored to Yaesu radio models, they work equally well for any base station radio.

YSU-SP-9000

| | | |
|---|---|---|
| YSU-SP-2000 | Base Station Speaker for FTDX-3000/5000 | **$219.95** |
| YSU-SP-9000 | Base Station Speaker for FTDX-9000 | **$369.95** |

## YAESU HF/50 MHz Transceiver

Yaesu's FTDX series has a well-deserved reputation for delivering phenomenal multi-signal characteristics. You'll find those qualities in the FTDX-3000, thanks to a top-quality down conversion design and powerful narrow bandwidth crystal roofing filters. The radio also incorporates a digital filtering, which is very effective at removing interfering signals. An advanced DSP circuit ensures excellent on-air copy and the radio's built-in automatic tuner makes switching bands quick and hassle-free.

The FTDX-3000 has a USB input—handy for receiving firmware updates, and facilitating CAT, USB audio in/out and USB TX control. Operating RTTY, SSTV, PSK31, JT and other digital modes is easy. The radio is rated at 100 watts maximum output power.

| | | |
|---|---|---|
| YSU-FTDX-3000 | HF/50 MHz Transceiver | CALL/WEB |
| YSU-XF-127CN | Crystal Filter, CW Narrow, 300 Hz | $199.95 |

## HF/VHF/UHF Multi-Mode Transceiver

Ideal as an all-band base station radio, Yaesu's FT-991A delivers 160M-70cm coverage with multi-mode operation, including CW, AM, FM, SSB and Digital Modes like Packet, PSK-31, RTTY and C4FM. Updated from the original FT-991, the FT-991A includes a new real-time spectrum scope and a multi-color waterfall display.

This radio features an advanced balanced receiver circuit configuration and cutting-edge DSP to deliver excellent interference rejection in real-world operating conditions. The selectable roofing filters help mitigate interference.

The FT-991A packs 100 watts of output power (50 watts on VHF), and has a built-in automatic antenna tuner that will memorize its tuning data to make band switching a laser-fast process. This rugged and compact radio is at home in a base station or, when paired with Yaesu's ATAS antenna, it makes an excellent portable radio.

| | | |
|---|---|---|
| YSU-FT-991A | HF/VHF/UHF Multi-Mode Transceiver | CALL/WEB |
| YSU-MMB-90 | Mobile Mounting Bracket | $49.95 |
| YSU-ATAS-25 | Micro Manually Tuned Portable Antenna | $249.95 |

## YAESU WiRES High Performance Digital and Analog Internet Linking Interface

Talk to Hams worldwide using the power of the Internet. This interface transforms RF communications to VoIP format, enabling long distance digital contact. WiRES is compatible with C4FM digital stations, plus traditional analog FM operation. You simply plug in to any Yaesu radio on the network and go.

Registering multiple user IDs, as well as nodes and rooms to a unique group, makes it easy to stay in touch with a circle of friends and affiliates. When operating within a group, keeping track of the in-range/out-of-range status of individual members is a snap. WiRES provides everything that is needed to maintain a node or room for use by members only.

Unlike other Internet linking technology, this interface is a plug-and-play affair without complicated router settings. It comes will all the cables you'll need to get on the air, along with a CD-ROM of straightforward setup software. Read more about this system at DXEngineering.com.

| | | |
|---|---|---|
| YSU-HRI-200 | WiRES High Performance Digital and Analog Linking Interface | $124.95 |

## YAESU HF/50 MHz Transceiver

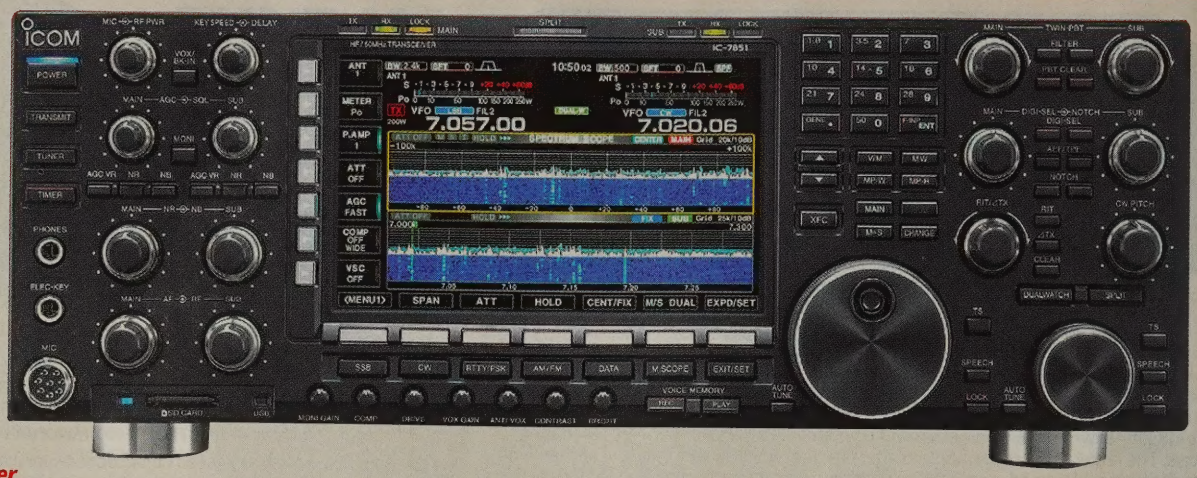
Packing 100 watts of output power on the HF and 6M bands and a slew of innovative features, the compact FT-450 is a great entry-level base station radio for the DX chaser, contester and HF ragchewer. The radio's straightforward controls, operating ease and attractive price tag also make it an excellent choice for the new Ham or casual operator. Adjustable IF width and IF shift controls are effective at mitigating station interference.

For even more versatility, the FT-450 has a built-in antenna tuner. Memory and recall modes make the radio very user-friendly. It's also small enough to be used in an EMCOMM go kit or a portable station.

| | | |
|---|---|---|
| YSU-FT-450D | HF/50 MHz Transceiver | CALL/WEB |
| YSU-MHG-1 | Carrying Handle | $14.95 |
| YSU-MMB-90 | Mobile Mounting Bracket | $49.95 |

## YAESU

| Accessory | Part Number | Description | YSU-FT-450D | YSU-FT-991A | YSU-FTDX-1200 | YSU-FTDX-3000 | YSU-FTDX-5000PL | YSU-FTDX-9000-MP |
|---|---|---|---|---|---|---|---|---|
| Antenna | YSU-ATAS-120A | 40M-70cm Auto Active Tuning Mobile Antenna | X | X | | | | |
| Antenna Base Kit | YSU-ATBK-100 | VHF/UHF Antenna Base Kit | X | X | | | | |
| Internal High-Q Tuning Units | YSU-MTU-160 | 160M Internal High-Q Tuning Unit | | | X | X | X | X |
| | YSU-MTU-80-40 | 80-40M Internal High-Q Tuning Unit | | | X | X | X | X |
| | YSU-MTU-30-20 | 30-20M Internal High-Q Tuning Unit | | | X | X | X | X |
| Microphone | YSU-MH-36E8J | Hand Mic, DTMF | X | X | | | | |
| Cable | YSU-CT-39A | Packet Cable, 6-pin DIN to Stripped Leads | X | X | X | X | | |
| Keypad | YSU-FH-2 | Remote Control Keypad | | X | X | X | X | X |
| Interface Unit | YSU-SCU-17 | USB Interface Unit, with Hookup Cables | X | | X | X | X | X |
| Memory Unit | YSU-DVS-6 | Voice Memory Unit, 5 Memories | | | X | X | | |
| External M-Tune RF Preselector Filters | YSU-RFMUTUNEKITA | 160M External M-Tune Preselector Filter | | | X | X | X | |
| | YSU-RFMUTUNEKITB | 80-40M External M-Tune Preselector Filter | | | X | X | X | |
| | YSU-RFMUTUNEKITC | 30-20M External M-Tune Preselector Filter | | | X | X | X | |



ICOM

### IC-7851 HF/50 MHz Transceiver

Icom just raised the bar on HF receivers. The IC-7851 is designed to give contesters and DXers an edge by incorporating an all-new local oscillator that dramatically reduces phase noise. The purity of the overall design results in a reciprocal mixing dynamic range of 110 dB, which means distant signals are clearer and easier to hear. Better still, a new spectrum scope has twice the sweep speed of previous models, which enables you to see those weak signals with a higher degree of accuracy. Its dual scope function lets you simultaneously watch activity in two bands—so you can snag that rare country or multiplier!

The IC-7851 also features a newly developed 1.2 kHz roofing filter to greatly improve in-band adjacent signal performance. Enhanced mouse control makes this radio even easier to use. With digital IF filter technology, you can easily adjust filter width parameters, essentially allowing you to build your own IF filter. A digital RD speech compressor improves your voice's tone quality, giving your on-air presence a little extra "punch."

- 200 watts
- Digital voice recorder/synthesizer
- Built-in SD card slot
- Twin independent receiver circuits
- Adjustable digital IF notching
- USB, Ethernet and S/PDIF Interface
- Antenna control
- Ultra-high dynamic range
- High speed auto antenna tuner
- PSK63 and PSK31

ICO-IC-7851 HF/50 MHz Transceiver ..... CALL/WEB

ICOM

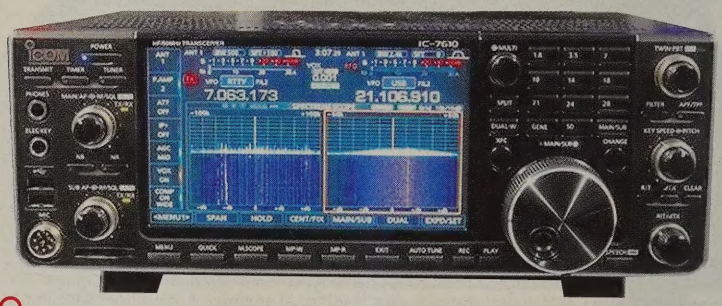
### IC-7300 HF/50 MHz Transceiver

The IC-7300 blends SDR and a traditional radio "box" to create a class-leading, highly affordable base/portable HF radio. It packs a ton of cutting-edge features, like a real-time band scope, excellent receiving performance characteristics and a large touchscreen display that allows touch-tuning on the spectrum scope. The IC-7300's new RF Direct Sampling System borrows SDR tech to replace the conventional superhetrodyne design with an RF Direct system. The result is a versatile and budget-friendly radio that delivers incredible receiver performance, easy filter adjustments and awesome audio clarity. The radio features an intuitive multi-dial knob and a built-in antenna tuner. It works on SSB, CW, RTTY, AM and FM modes. More importantly, Icom's engineers were still able to cram it all in a rugged and compact package—perfect for your portable or EMCOMM station. The IC-7300 provides the performance and features of an SDR, yet you still get the familiar tactile "feel" of radio knobs and buttons.

- Voice memory & memory keyer
- SD card slot
- 100 W (25 W AM)
- Multi-function meter
- Screen capture
- Digital noise reduction

Find the full details on the IC-7300 at DXEngineering.com.

| | | |
|---|---|---|
| ICO-IC-7300 | HF/50 MHz Transceiver | CALL/WEB |
| ICO-MB-118 | Mobile Mounting Bracket | $24.95 |
| ICO-MB-123 | Transceiver Carry Handle | $29.95 |
| ICO-SP-38 | Base Station Speaker | $174.95 |
| ICO-OPC-2361 | Replacement DC Power Cord, As Supplied | $65.95 |
| ICO-HM-219 | Replacement Hand Mic, As Supplied | $54.95 |



ICOM

### Reserve Yours Now—New Icom IC-7610

Announced at the 2016 Tokyo Ham Fair, Icom's all-new IC-7610 features an all-mode direct sampling SDR design similar to the much-loved IC-7300. The radio covers the HF and 6M bands, and packs 100 watts of RF output. Its display is an intuitive touchscreen, with real-time spectrum and waterfall displays, and dual watch functionality.

We expect FCC approval soon. In the meantime you can reserve your IC-7610 now, and when the radios arrive, we'll ship them in the order that the reservations were received. The reservation fee is subtracted from your radio's purchase price. The deposits are non-refundable, but if you change your mind, your 50 dollars will return as a credit good for almost anything DX Engineering sells.

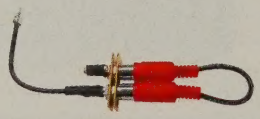
This dynamic HF/50MHz transceiver sports the absolute latest technology, delivering superior receive and transmit performance, extremely low phase noise and high RMDR. Here are just a few other announced features to whet your appetite:

- DIGI-SEL pre-selector for enhanced interference rejection
- Digital IF filter and digital twin PBT for interference rejection
- External monitor connection with a DVI-D port
- Large 7-inch high-resolution (800 × 480 pixels) color display
- Optional SD card for saving user profiles and QSOs
- Newly designed large speaker box for superior sound quality
- Built-in high-speed automatic antenna tuner

ICO-IC-7610 Icom IC-7610 Reservation ..... CALL/WEB

INRAD international radio

### Receive-Only Antenna Jack for the IC-7300



Though the Icom IC-7300 is a splendid radio out of the box, its lack of separate receive jack has discouraged some operators. InRad has come to the rescue with this easy to install (and reversible) modification. It adds a dedicated receive antenna jack that can also be used to add accessories into the signal path, like bandpass filters or a low noise preamp. When installed, the radio uses an SO-239 connector on transmit and an RCA phono jack to receive. To quickly revert to normal operation, simply install the included coax loop.

INR-RX7300 Receive-Only Antenna Jack for the IC-7300 ..... $39.95

ICOM

### Remotely Control Icom Transceivers Through an IP Network!

**IP Remote Control Software**

The IP Remote Control Software allows you to operate an Icom radio installed in another room using your home network or even from a remote location over the Internet. The software works with Icom IC-9100, IC-7800, IC-7700, IC-7600, IC-756PROIII, IC-746PRO, IC-7400, IC-7200, IC-7300, IC-7850LE, IC-7851 and IC-7000 transceivers. System requirements: Windows® XP (SP3), Vista or Windows® 7.

ICO-RS-BA1 IP Remote Control Software ..... $99.95

## ICOM IC-9100 HF/VHF/UHF Transceiver

This workhorse, all-in-one transceiver provides sophisticated HF/VHF/UHF operation with room to grow. The IC-9100 covers almost every Ham band and mode and offers a wide variety of operating capabilites. Add the optional UX-9100 1200 MHz band unit and UT-121 D-STAR unit for increased communications capabilities.
Power Requirement: 13.8 Vdc @ 24A. Dimensions: 12.4" W x 4.57" H x 13.5" D.

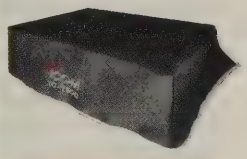
- Covers HF/50, 144, 430/440 amateur bands in SSB, CW, AM, and FM modes
- Built-in voice synthesizer announces operating frequency, mode and S-meter level
- Voice Squelch Control (VSC) function
- AFC function (FM/DV mode)
- Five scanning modes: program, memory, select memory, mode select, Δf scan
- RF speech compressor
- Microphone equalizer and adjustable transmit bandwidth
- Two preamplifier types for HF/50 MHz bands (low-level and high-gain)
- CTCSS and DTCS tone encoder and decoder
- Audio equalizer function
- SSB/CW synchronous tuning
- 9600 bps data socket
- Automatic and one-touch repeater functions
- Optional 3 kHz/6 kHz filters, see table below
- Optional UX-9100 unit for operating on the 1200 MHz band
- Optional UT-121 D-STAR unit for digital voice and low speed data communication

| | | |
|---|---|---|
| ICO-IC-9100 | HF/VHF/UHF Transceiver | CALL/WEB |
| ICO-UX-9100 | 1200 MHz Band Unit, Adds 1240-1320 MHz Capabilities | $689.95 |
| ICO-UT-121 | Plug-In Digital/GPS Module (included) | $159.95 |
| ICO-CS-9100 | Programming/Cloning Software | $59.95 |

### Equipment Covers

You've spent a lot of money on your Ham Radio gear, so protect it with EAntenna's high-quality Equipment Covers. These custom-fit covers are embroidered with the logo and model number of the gear they're protecting. Each polyester/cotton cover has slits in the back, so you can slip it over the radio or amp without unplugging any cables.

| Part Number | Description | Price |
|---|---|---|
| EAN-FIC7300 | Icom IC-7300 | $39.95 |
| EAN-FIC7600 | Icom IC-7600 | $39.95 |
| EAN-FIC7700 | Icom IC-7700 | $41.95 |
| EAN-FIC7800 | Icom IC-7800 | $41.95 |
| EAN-FIC7850 | Icom IC-7850 | $55.95 |
| EAN-FIC7851 | Icom IC-7851 | $45.95 |
| EAN-FTS590 | Kenwood TS-590 | $39.95 |
| EAN-FTS990 | Kenwood TS-990 | $41.95 |
| EAN-FTS2000 | Kenwood TS-2000 | $39.95 |
| EAN-FFT991 | Yaesu FT-991A | $37.95 |
| EAN-FFT2000D | Yaesu FT-2000D | $39.95 |
| EAN-FFTDX1200 | Yaesu FTDX-1200 | $39.95 |
| EAN-FFTXDX3000 | Yaesu FTDX-3000 | $39.95 |
| EAN-FFTDX5000 | Yaesu FTDX-5000 | $39.95 |



EAN-FIC7300

EAN-FFTDX5000

## ICOM IC-7700 HF/50 MHz All Mode Transceiver

The top performance, contest and DX chasing transceiver! It features the latest updates including two independent IC-7800-type DSP units (one for the transmitter/receiver, one for the spectrum display).
Dimensions: 16.7" W x 5.9" H x 17.1" D. Weight: 52.9 lbs.

- 40 dBm third order intercept point
- Selectable 3, 6 and 15 kHz roofing filters
- Built-in switching power supply
- Built-in RTTY/PSK31 mode—requires only an external keyboard
- Typical 134 dB @ 5 kHz dynamic range
- Exceptional out-of-band signal rejection
- 7" color TFT (800 x 480 pixel) LCD
- Accepts external VGA monitor
- Automatic tracking preselector and relay-switched front end
- Push-pull 48 Vdc MOSFET amplifiers—200 watts at full duty cycle
- Rear-panel I/O allows interface of a second Icom transceiver
- Digital voice recorder, DSP noise blanker, USB flash drive socket

| | | |
|---|---|---|
| ICO-IC-7700 | HF/50 MHz All Mode Transceiver | CALL/WEB |

## ICOM IC-718 HF Base Station Transceiver

The most practical DSP rig you'll ever own! It covers 160 to 10 meters (except 60 meter) in CW, RTTY and AM modes. Power Requirement: 13.8 Vdc @ 20A.
Dimensions: 9.4" W x 3.75" H x 9.4" D. Weight: 8.5 lbs.

- 5-100 watts adjustable output power
- 101 scannable memory channels
- IF shift control
- RF gain control, RF attenuator/preamp
- Electronic CW keyer, VOX voice operation
- High frequency stability
- Front facing speaker
- 2-40 watts AM
- 0.03-30 MHz RX coverage
- Mic compressor
- Auto-notch filter
- Digital S/RF meter
- Optional filter selection
- Hand mic included

| | | |
|---|---|---|
| ICO-IC-718 | HF Base Station Transceiver | CALL/WEB |
| ICO-CR-338 | High-Stability Crystal Unit, 32 MHz | $89.95 |
| ICO-UT-106 | Plug-In DSP Receive Module (Included) | $139.95 |
| ICO-MB-23 | Transceiver Carrying Handle Kit for IC-718 | $19.95 |
| ICO-OPC-025D | DC Power Cable, Inline Fuse Holder, Molex 6-pin | $37.95 |
| ICO-FL-222 | Crystal Filter, 1.9 kHz Bandwidth, 455 kHz IF | $214.95 |

ICOM

| Accessory | Part Number | Description | ICO-IC-718 | ICO-IC-7200 | ICO-IC-7300 | ICO-IC-7700 | ICO-IC-7800 | ICO-IC-7600 | ICO-IC-7851 |
|---|---|---|---|---|---|---|---|---|---|
| Antennas | ICO-AH-2B | Antenna Element with Base, Compatible AH2, AH3 and AH4 | X | X | X | | | X | X |
| | ICO-AH-710 | Folded Dipole | X | X | X | | | | |
| | ICO-AH-740 | Relay, Driven Compant Automatic Tuning Antenna, 1.6-29.999 MHz | X | X | X | | | | X |
| Cables | ICO-OPC-1457 | Power Cable, DC, 4-pin, 9.8', ATO/ATC Inline Fuse Holder | | X | | | | X | X |
| | ICO-OPC-1529R | RS232 Type PC/GPS Cable | | | | | | X | X |
| | ICO-OPC-510 | AC Power Cable | | | | X | X | | |
| Control Cable Adapters | ICO-OPC-599 | Accessory Port Y-Adapter, 13-pin DIN Plug to 7-pin and 8-pin DIN Receptacles | X | X | X | | | X | X |
| | ICO-OPC-2321 | Control Cable Adapter to 4-pin Type for AH740 | X | X | X | | | | X |
| Filters | ICO-FL-430 | Roofing Filter, 1st IF Stage, 6.0 kHz, 64.455 MHz IF | | | | | | | X |
| | ICO-FL-431 | Roofing Filter, 1st IF Stage, 3.0 kHz, 64.455 MHz IF | | | | | | | X |
| Hand Mic | ICO-HM-36 | Hand Microphone, Same as Supplied | X | X | | X | X | X | X |
| Level Converter | ICO-CT-17 | Transceiver Level Converter, CI-V, RS232, Remote Jack Cables, Kit | X | X | X | X | X | X | X |
| Carrying Handle | ICO-MB-123 | Transceiver Carrying Handle Kit | | | X | | | | X |
| Remote Control | ICO-RC-28 | Remote Control USB Encoder, with Tuning Knob and Transmit Button | X | X | X | X | X | X | X |

## ICOM *IC-7200 HF/50 MHz Transceiver*

Icom gives you high performance IF DSP technology in a package that's rugged enough for portable use. In fact, you'll find several features in the IC-7200 that don't typically appear on transceivers in this price range. This radio is simple to operate with an intuitive screen and straightforward controls. It's also built tough, employing the latest water intrusion safeguards for reliable use in the field. The front-firing speaker is handy in EMCOMM and makeshift installations, too. Icom makes several accessories that make it easy to take the IC-7200 into the field or install for mobile operation.

- CW, AM, SSB and RTTY
- Full break-in CW
- AGC loop management
- Digital twin passband tuning
- USB port for PC control
- Digital noise reduction
- RF speech compressor
- Digital IF filter
- High stability transmitter

| | | |
|---|---|---|
| ICO-IC-7200 | HF/50 MHz Transceiver | CALL/WEB |
| ICO-MB-116 | Transceiver Front-Mount Carrying Handles | $86.95 |
| ICO-MB-117 | Transceiver Top-Mount Carrying Handle | $29.95 |
| ICO-MB-118 | Mounting Bracket for Mobile Installation | $24.95 |

## ICOM *IC-7100 HF, VHF and UHF Transceiver*

Icom gives you leading-edge technology in an attractive package with the IC-7100. Controlling the IC-7100 is easy and intuitive with an industry-first multi-function, dot-matrix LCD touch screen. The control head is angled to provide a clear view and the buttons are spaced to accommodate large fingers. For clear communications, there is a large speaker plus an integrated CW keyjack, microphone and control cable.

The IC-7100 provides D-STAR DV mode digital voice and low speed data communications with an optional module. It is also equipped with a state-of-the-art 32-bit floating point DSP. Find all of the specs on this groundbreaking transceiver at DXEngineering.com.

D-STAR ready

- Dual DSP chips deliver versatile digital processing performance
- Built-in SD card slot for voice storage and data cloning
- Built-in RTTY demodulator and decoder
- Multi-function meter/SWR graphic display
- DSP controller RF speech compressor
- 505 memory channels
- Voice recording and playback functions
- ±0.5 ppm high frequency stability

**Included Accessories**

- Hand microphone
- ACC, separation and DC power cable
- Electronic keyer and hand key plug

| | | |
|---|---|---|
| ICO-IC-7100 | HF/VHF/UHF Digital Transceiver | CALL/WEB |
| ICO-PS-126 | Switching Power Supply, 20A at 13.8 Vdc | $429.95 |
| ICO-MB-62 | Mobile Transceiver Mounting Bracket, for IC-7100 | $44.95 |
| ICO-MBA-1 | Mobile Transceiver Control Head Mounting Bracket | $39.95 |
| ICO-MBF-1 | Suction Mount, use with MBA-1 Mounting Bracket | $79.95 |
| ICO-CS-7100 | Programming/Cloning Software | $49.95 |
| ICO-OPC-589 | Mic Adapter Cable, 8-pin Modular to 8-pin Round | $36.95 |

Need a microphone, headset or external speaker to complement your new radio? Check out the Audio Accessories section starting on page 24.

KWD-TS-480SAT

## KENWOOD *TS-480HX and TS480SAT All Mode Transceivers*

Equally at home in a base or mobile installation, Kenwood's TS-480 series gives you 160-6 meter coverage in a compact package. These are great radios if you're primarily an HF operator. The separated control panel with built-in speaker means that you've got plenty of mounting options. The TS-480 series operates PSK 31, SSB, CW, FSK, FM and AM modes.

The key difference between the two radios is that the TSW-480HX packs 200 watts, while the TS-480SAT is 100 watts and features a built-in antenna tuner.

| | | |
|---|---|---|
| KWD-TS-480HX | All Mode Transceiver, 200 Watts | CALL/WEB |
| KWD-TS-480SAT | All Mode Transceiver, 100 Watts, Antenna Tuner | CALL/WEB |
| KWD-MJ-88 | Mic Interface Cable, RJ45 to 8-pin Round Receptacle | $29.95 |
| KWD-YF-107C | Crystal Filter, 500 Hz | $119.95 |
| KWD-YF-107CN | Crystal Filter, 270 Hz | $119.95 |
| KWD-YF-107SN | Crystal Filter, 1.8 kHz | $119.95 |
| KWD-MB-480M | Carrying Bracket with Handle | $46.95 |

KWD-TS-2000

## KENWOOD *TS-2000 HF/VHF/UHF Transceivers*

The TS-2000 is an excellent foundation to build your station around because of its incredible 160M-70cm coverage range. In fact, the TS-2000X adds Kenwood's UT-20 module to cover all the way up to 1300 MHz! You'll get 100/25 watts max./min. power on most bands. The TS-2000 operates CW, SSB, FSK, AM and FM modes. This radio also boasts a built-in 9600/1200 bps TNC for DX Packet Cluster Tune and Kenwood's Sky Command II Plus control. Visit DXEngineering.com for all the specs.

| | | |
|---|---|---|
| KWD-TS-2000 | HF/VHF/UHF Transceiver | CALL/WEB |
| KWD-TS-2000X | HF/VHF/UHF/1.2 GHz Transceiver | CALL/WEB |
| KWD-ARCP-2000 | PC Control/Programming Software, CD-ROM | $76.95 |
| KWD-DRU-3A | Plug-In Module, Digital Voice Recorder Board, 3 Channels | $128.95 |
| KWD-PG-2Z | DC Power Cable, Molex 6-pin to Bare Wire | $37.95 |

## Nifty! Ham Accessories *Reference Guides Base Transceivers*

Sometimes the hardest part of using a radio is reading the lengthy instruction manual. Nifty created concise Reference Guides for specific radio models, written in easy-to-follow language. They're spiral bound and laminated so they won't get ruined in a drawer, EMCOMM Go Kit or glove box. Choose your manual from the radios below. If yours isn't listed, there are many more available at DXEngineering.com.

| Part Number | Brand | Model | Price |
|---|---|---|---|
| NIF-MM-DXSR8 | Alinco | DX-SR8 | $16.95 |
| NIF-MM-IC7100 | Icom | IC-7100 | $26.95 |
| NIF-MM-IC718 | Icom | IC-718 | $16.95 |
| NIF-MM-IC7200 | Icom | IC-7200 | $16.95 |
| NIF-MM-IC7300 | Icom | IC-7300 | $22.95 |
| NIF-MM-IC7410 | Icom | IC-7410 | $20.85 |
| NIF-MM-IC7600 | Icom | IC-7600 | $24.85 |
| NIF-MM-IC7700 | Icom | IC-7700 | $24.85 |
| NIF-MM-IC9100 | Icom | IC-9100 | $22.85 |
| NIF-MM-TS2000 | Kenwood | TS-2000/X | $18.85 |
| NIF-MMTS480HXSAT | Kenwood | TS-480HX/SAT | $18.85 |
| NIF-MM-TS590SG | Kenwood | TS-590SG | $20.85 |
| NIF-MM-FT991 | Yaesu | FT-991 | $22.95 |
| NIF-MM-FT991A | Yaesu | FT-991A | $22.95 |
| NIF-MM-FTDX1200 | Yaesu | FTDX-1200 | $22.95 |
| NIF-MM-FTDX3000 | Yaesu | FTDX-3000 | $22.95 |
| NIF-MM-FTDX5000 | Yaesu | FTDX-5000/D/MP | $22.95 |
| NIF-MM-FT450 | Yaesu | FT-450/D | $20.85 |

## KENWOOD

### *TS-990S HF/6 Meter Base Transceiver*

Kenwood calls the TS-990S its ultimate 200 watt contest/DX transceiver because it achieves the best reception performance of any radio in Kenwood's legendary TS series. It's equipped with dual receivers for simultaneous reception on two different bands. The radio incorporates narrow-band high-IP roofing filters, a newly developed mixer circuit, and a built-in antenna tuner to deliver uncompromised performance. Advanced AGC control perfectly fuses analog and digital reception. The TS-990S also features Kenwood's Sky Command II system for full duplex communications. Find more specs at DXEngineering.com.

KWD-TS-990S HF/6 Meter Base Transceiver ..... **CALL/WEB**

## KENWOOD *TS-590SG HF/6 Meter Base Transceiver*

Designed for the most demanding DX and contest operators, Kenwood's TS-590SG 100 watt transceiver boasts highly-reliable transmit outputs to deliver an exceptionally good transmit signal.

The 100 watt TS-590SG has the best receive dynamic range in its class versus off-frequency interference. It features a 32-bit floating DSP, a built-in automatic antenna tuner, beat cancel and CW auto tune. USB and serial DB-9 ports make connection to a PC easy. The radio comes with Kenwood's Control Software and Radio Host Program for VOIP operation.

KWD-TS-590SG HF/6 Meter Base Transceiver ..... **CALL/WEB**

Nifty! Ham Accessories

New!

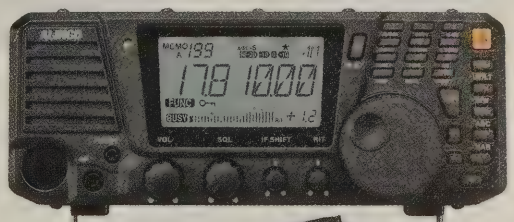
### *Universal Wire Stand*

Don't risk sliding your expensive portable/base radio onto the floor. If your radio has a folding wire loop-style stand, this stand will keep it secure. The stand features four anti-skid feet and three different cradle positions to hold your radio at the optimal viewing angle. It's compatible with the Icom IC-7300, IC-718, Elecraft K3, Yaesu FT-991, Alinco SR8T and many more.

NIF-DS-WB-UNIV Universal Wire Stand ..... **$20.95**

## ALINCO *DX-SR8T 1.9-29 MHz All-Mode Desktop Transceivers*

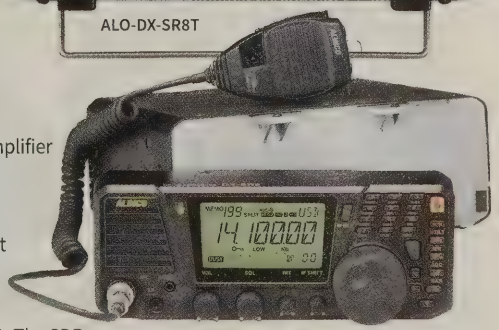
Covering the 160 to 10 meter bands (including 5.3 MHz), this is an excellent radio to build your HF station around. It puts out 100 watts in SSB/CW/FM, and 40 watts in AM. QRP operators will love the low and super low power settings. The DX-SR8T also boasts a receive range from 135 kHz to 30 MHz in all modes.




ALO-DX-SR8T

CW enthusiasts rave about the standard electronic keyer, and you can receive CW on the upper or lower sideband. The radio features a detachable front panel, which means it also works quite well in a mobile or marine application.

- IF shift to fight QRM
- Enhanced scan mode
- Step attenuator and preamplifier
- 600 memories in 3 banks
- CTCSS encoding for 10M repeaters
- High SWR protection circuit




ALO-DX-SR9T

This "hybrid" DX-SR9T radio takes all the features of the DX-SR8T, and then adds a software-defined counterpart. The SDR system in the DR-SR9T/E is Windows compatible. To ensure you're comfortable with the software, Alinco will let you download and test it for free. Visit Alinco.com for the link.

ALO-DX-SR8T 1.9-29 MHz All-Mode Desktop Transceiver ..... **CALL/WEB**

ALO-DX-SR9T 1.9-29 MHz All-Mode Desktop/SDR Transceiver ..... **CALL/WEB**

## KENWOOD

| Accessory | Part Number | Description | KWD-TS-480HX | KWD-TS-480SAT | KWD-TS-590SG | KWD-TS-990S | KWD-TS-2000 | KWD-TS-2000X |
|---|---|---|---|---|---|---|---|---|
| Bracket | KWD-MB-430M2 | Mobile Mounting Bracket Kit | | | X | | X | X |
| Cable | KWD-PG-20 | DC Power Cable, Molex 4-pin to Bare Wire, 2 Inline Fuse Holders | X | X | X | | | |
| Speaker Microphones | KWD-MC-47 | Hand Mic, Function Buttons, 8-pin Plug | X | X | X | | X | X |
| | KWD-MC-43S | Hand Mic, PTT Switch, 8-pin Plug | X | X | X | X | X | X |
| Voice Synthesizer | KWD-VS-3 | Plug-In Module, Voice Synthesizer | X | X | X | | X | X |
| Voice Guide | KWD-VGS-1 | Plug-In Module, Voice Synthesizer and Recorder | X | X | X | | | |
| TCXO Unit | KWD-SO-3 | Plug-In Module, TCXO Unit | X | X | X | | | |

## ALINCO

| Accessory | Part Number | Description | ALO-DX-SR8T | ALO-DX-SR9T |
|---|---|---|---|---|
| Cables | ALO-ERW-4C | PC Interface, Serial | X | X |
| | ALO-ERW-7 | PC Interface, USB | X | X |
| Front Panel Kit | ALO-EDS-17 | Front Panel Remote Mounting Kit | X | X |
| Hand Mic | ALO-EMS-64 | Mobile Hand Microphone | X | X |
| Mic Hanger | ALO-EBC-7 | Universal Fit Speaker-Mic Hanger | X | X |
| Remote Controller | ALO-EDS-12 | Wire Remote Controller | X | X |

**Check out more audio equipment on pages 24-30**

# YAESU

### HF/6M All Mode Portable Transceiver

Portable and mobile operators rejoice! The all-new FT-891 gives you HF and 6 meter coverage plus 100 watts of transmit power. A high speed 32 bit DSP successfully mitigates QRM, and the FT-891's circuit design and 3 Khz roofing filter boasts Yaesu's legendary performance. The large screen and intuitive controls make the radio easy to operate. The FT-891 is rugged and compact, with a detachable faceplate for use in the field or in a vehicle.

YSU-FT-891 HF/6M All Mode Portable Transceiver ..... **CALL/WEB**

# YAESU

### 2M/70cm C4FM Digital Dual-Band Transceiver

Building on the already capable FTM-100DR, the first thing you'll notice about this radio is its massive touchscreen display. The screen can be adjusted to display a band scope, frequency, APRS® information, smart navigation and altitude. This radio replaces Yaesu's popular FTM-400D, offering improved GPS and APRS functions. What really makes this radio unique is its ability to digitally transmit and receive images. You can even take your own pictures using the optional speaker microphone with camera; a Micro SD card is also required. The radio's touchscreen/control panel detaches to allow for easy mounting inside a vehicle.

YSU-FTM-400XD 2M/70cm C4FM Digital Dual-Band Transceiver ..... **CALL/WEB**

YSU-MH-85A11U Speaker Mic with Snapshot Camera ..... **$139.95**

# YAESU

### 2M/70cm C4FM Digital Dual-Band Transceiver

Here's an economical way to take advantage of Yaesu's System Fusion technology and start operating digitally. Operating in one of three digital modes (voice/data, full voice, or full data) opens up a ton of digital capabilities. Sketchy signal strength? Switch over to a traditional analog FM mode and you're good to go. The FTM-100DR has a built-in GPS unit/logger with APRS® functionality standard. Use the radio's digital group monitor function and you'll know when "checked-in" members are within TX/RX range—it's a valuable feature for large group activities and search-and-rescue ops.

The radio packs up to 50 watts of operating power, plus an extended receive range for added versatility. The 500 memory channels are stored on a Micro SD card, which simplifies the cloning and data transfer process.

YSU-FTM-100DR 2M/70cm C4FM Digital Dual-Band Transceiver ..... **CALL/WEB**

# YAESU

| Accessory | Part Number | Description | YSU-FTM-100DR | YSU-FTM-400XD |
|---|---|---|---|---|
| AC Adapter | YSU-SAD-11B | AC Adapter/Charger | X | X |
| Adapter Unit | YSU-BU-2 | Bluetooth® Adapter Unit | X | X |
| Bracket | YSU-MMB-98 | Controller Mounting Bracket | X | X |
| Cables | YSU-CT-164 | Data Cable, 10-pin Mini-DIN to 6-pin Mini-Din | X | X |
| | YSU-SCU-20 | PC Connection Cable & Software | X | X |
| | YSU-MEK-2 | Mic Extension Cable | X | X |
| Voice Guide Unit | YSU-FVS-2 | Voice Operating Guide Unit | X | X |

More accessories available at DXEngineering.com.

# YAESU

### FTM-3200DR 2 Meter and FTM-3207 70cm C4FM/FM Digital, Plus FTM-3100R 2 Meter Mobile Transceivers

Compact and durable, the 65 watt FTM-3200DR and 55 watt FTM-3207DR operate in C4FM digital modes, including voice/data split, voice full rate and data full rate modes, plus traditional analog FM.

The radios incorporate Yaesu's System Fusion technology, including the handy Automatic Mode Select function. Using AMS, they will detect whether an incoming signal is digital or analog, and automatically switch to that format for a seamless transition between operating modes.

The display is intuitive, with an color-changing LED indicator to show the signal mode being used, blue (digital) or green (analog). The radios also take advantage of System Fusion's Digital Group Monitor capability, which alerts you if other registered members are within range.

If you don't need C4FM digital capability, Yaesu offers the FTM-3100R. It's an attractive alternative for operators who are looking for a feature-laden analog FM 2 meter mobile.

YSU-FTM-3200DR 2M C4FM/FM Digital Mobile Transceiver ..... **CALL/WEB**

YSU-FTM-3207DR 70cm C4FM/FM Digital Mobile Transceiver ..... **CALL/WEB**

YSU-FTM-3100R 2M FM Analog Mobile Transceiver ..... **CALL/WEB**

# YAESU

New!

### FT-2900R and FT-2980R 80W 2M FM Mobile Transceivers

These two rugged, compact and economical radios are ideal for mobile or portable stations. At 80 watts, the new FT-2980DR adds extra transmit power over the venerable 75W FT-2900DR. Even at those output levels, neither radio requires a fan—robust heat sinks easily handle the power. Three watts of audio output make them easy to hear in noisy environments too.

A intuitive smart scan function means it's simple to find activity, while the alphanumeric display has four brightness levels for use in a mobile station. In addition to the extended 136-174 MHz receive range, both of these mobiles get the NOAA weather channels with severe weather alerts. They're also equipped with Yaesu's handy dual watch feature, so you can listen to two frequencies simultaneously.

YSU-FT-2980R 80W 2M FM Mobile Transceiver ..... **CALL/WEB**

YSU-FT-2900R 2M Heavy-Duty Mobile Transceiver ..... **CALL/WEB**

# YAESU

New!

### FTM-3207DR C4FM/FM 430MHz 55W Mobile Transceiver

When Yaesu introduced the feature-laden FTM-3200DR for 2 meters, there was much speculation about a possible 70cm version—and here it is. Sharing the same robust features as the FTM-3200DR, the new FTM-3207DR offers C4FM digital coverage on the 430 MHz band.

The FTM-3207DR uses Yaesu's Automatic Mode Select function, which lets you switch seamlessly from analog to digital transmission. It packs 55 watts of RF power without the need for a cooling fan. Operation is simple thanks to its keypad microphone, large alphanumeric screen and multi-colored LED indicator.

This radio was just introduced in August, so see the most up-to-date specs at DXEngineering.com.

YSU-FTM-3207DR C4FM/FM 430MHz 55W Mobile Transceiver ..... **CALL/WEB**

# YAESU

### 2M/70cm Dual-Band Mobile Transceiver

Looking for a simple, rugged dual-bander with plenty of capability? The FT-7900R offers 50 watts (40 W on 70cm) of maximum output power, so you can hit distant repeaters or even talk to the "birds" and work the satellites. Extended receive range covers a bulk of the aircraft, government, weather and commercial bands, too. And the radio's 1,000 memory channels make sure you can access them all quickly for no-hassle operation. The FT-7900R is also compatible with Yaesu's WiRES-II™ VoIP Internet Linking system.

This radio includes a separation kit, which means you can mount the radio's chassis under a seat or against the firewall, and install the compact control head right within arm's reach.

YSU-FT-7900R 2M/70cm Dual-Band Mobile Transceiver ..... **CALL/WEB**

# YAESU

### Quad-Band Mobile FM Transceiver

Take an already impressive 2M/70cm radio, and then add TX/RX on 10 and 6 meters! The rugged FT-8900R is a great option for operators who live away from reliable repeater networks and need the 10 meter band. You'll also get Yaesu's WiRES-II™ VoIP Internet Linking system capability. The radio is packed with features like 50 watts of output power, cross-band repeat and over 800 memory channels. Using dual receive VHF+UHF full duplex functionality, the FT-8900R can essentially be set up as two radios in one, using one "side" of the radio for 10 and 6 meters, and the other for VHF/UHF.

YSU-FT-8900R Quad-Band Mobile FM Transceiver ..... **CALL/WEB**

# YAESU

### Mobile Transceiver Cooling Fan

Using a mobile Yaesu radio in a home station setup? Here's a smart way to protect it from overheating. This fan uses the radio's existing hardware to create a stable, secure base for easy operation. Four big feet keep it firmly planted on your desk. The fan is compatible with the FTM-400, FTM-100DR, FT-7900R, FT-8800R and FT-8900R. An AC adapter is included.

YSU-SMB-201 Mobile Transceiver Cooling Fan ..... **$69.95**

| Accessory | Part Number | Description | YSU-FT-857D | YSU-FT-817ND |
|---|---|---|---|---|
| Antenna | YSU-ATAS-25 | 40M-70cm Micro Manually Tuned Portable Antenna | x | x |
| Microphone | YSU-MH-36E8J | Hand Mic, DTMF | x | x |
| Filters | YSU-YF-122C | Filter, CW, 500 Hz Bandwidth, 455 kHz IF | x | x |
| | YSU-YF-122CN | Filter, CW, 300 Hz Bandwidth, 455 kHz IF | x | x |
| | YSU-YF-122S | Filter, SSB, 2.3 kHz Bandwidth, 455 kHz IF | x | x |
| Cables | YSU-CT-62 | CAT Interface Cable | x | x |
| | YSU-CT-39A | Packet Cable, 6-pin DIN to Stripped Leads | x | x |
| Crystal Oscillator | YSU-TCXO-9 | TCXO High Stability Reference Oscillator, .5 ppm | x | x |
| Interface Unit | YSU-SCU-17 | USB Interface Unit, with Hookup Cables | x | x |

# YAESU

### All-Band Multi-Mode Mobile/Portable QRP Transceiver

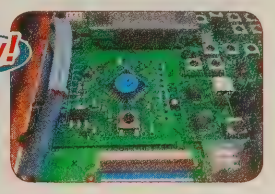
Its small size belies its capabilities. This is a fully contained battery-powered portable station that packs 5 watts of transmitting power. Covering 160-10 meters (including 60M), plus 6M, 2M and 70cm, this versatile QRP rig operates SSB, CW, AM, FM, Packet, and SSB-based digital modes including PSK31. Expanded receive coverage includes shortwave/FM broadcast, along with government and aircraft bands. It has a built-in electronic keyer and spectrum scope, plus a front-panel BNC connector for adding a whip. A battery pack and compact flex antenna are included.

| | | |
|---|---|---|
| YSU-FT-817ND | All-Band Multi-Mode Mobile/Portable QRP Transceiver; | **CALL/WEB** |
| YSU-CSC-83 | Soft Carrying Case | **$29.95** |
| YSU-FNB-85 | Ni-MH Battery Pack, 1,400 mAh | **$69.95** |
| YSU-PA-48B | Wall Power Adapter | **$29.95** |
| BHD-RADIO-MATE | Radio Mate Yaesu Keypad Interface | **$155.95** |
| CHA-FT-817-BRKT | Mounting Bracket for FT-817 | **$138.95** |

SB™

### LASERBEAM Audio Filter Module for the Yaesu FT-817

**New!**



This 2-in-1 digital filter effectively eliminates QRM to give you improved SSB and CW performance. The module installs with minimal soldering and no significant chassis modifications.

SBM-LASERBEAM817 LASERBEAM Audio Filter for FT-817 ..... **$65.95**

# YAESU

### All-Band Multi-Mode Mobile Transceiver

OK, go read the information of the FT-817ND QRP Transceiver but skip the QRP part. This robust transceiver gives you up to 100 watts of output power, depending on the band and mode you're using. This FT-857D uses cutting-edge DSP technology to offer base station performance in a package small enough to fit in your dashboard or backpack. This transceiver's impressive list of features and capabilities has made it a popular choice for EMCOMM stations and remote portable operation.

When used with a compatible amplifier and data cable, you can take advantage of Yaesu's Quadra System. Your radio will send band switching data directly to the amplifier for quick, seamless operation.

| | | |
|---|---|---|
| YSU-FT-857D | All-Band Multi-Mode Mobile Transceiver | **CALL/WEB** |
| YSU-YSK-857 | Remote Mounting Kit | **$79.95** |
| YSU-MH-59A8J | Remote Control Hand Mic | **$84.95** |
| YSU-CT-58 | Quadra System Band Data Cable | **$37.95** |
| YSU-ATAS-120A | Auto Active Tuning Antenna | **$389.95** |
| YSU-ATBK-100 | Antenna Base Kit for ATAS-120A | **$99.95** |

# YAESU

| Accessory | Part Number | Description | YSU-FT-8900R | YSU-FT-7900R |
|---|---|---|---|---|
| AC Adapter | YSU-SAD-11B | AC Adapter/Charger | x | x |
| Bracket | YSU-MMB-60 | Mobile Mounting Bracket | x | x |
| Cables | YSU-CT-39A | Packet Cable, 6-pin DIN to Stripped Leads | x | x |
| | YSU-MEK-2 | Mic Extension Cable | x | x |
| Cooling Fan | YSU-SMB-201 | Mobile Transceiver Desktop Cooling Fan | x | x |
| Separation Kit | YSU-YSK-8900 | Separation Kit, with Bracket and Cable | x | |

ICOM

## ID-5100A-D Digital Transceiver

Icom's cutting-edge ID-5100A-D Digital Transceiver has launched a new generation of Icom radio design. It features a large touchscreen LCD, optional Bluetooth® connectivity and second station control through an Android device.

The ID-5100A is a 50 watt D-STAR 2M/70cm mobile radio with a built-in GPS device, along with a CTCSS/DTCS encoder and decoder. The radio uses Icom's Dualwatch technology, and includes independent VHF/UHF band units, a built-in GPS engine and 1,000 memory channels. New deluxe model includes MBA-2 control bracket.

To add Bluetooth functionality to the Icom ID-5100, install the optional Plug-In Module.

It works with the special Icom VS-3 headset to let you link your radio with Bluetooth enabled devices (like a car's infotainment system). This is a particularly handy feature if you live in a state that requires hands-free mobile communication.

The headset has a TX/RX switch, a PTT switch, plus three programmable buttons. A USB charging cable is included.

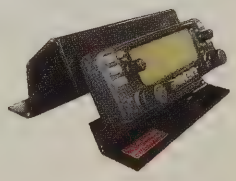
| | | |
|---|---|---|
| ICO-ID-5100A-D | D-STAR Deluxe 2M/70cm Digital Transceiver | CALL/WEB |
| ICO-UT-133 | Bluetooth Plug-In Module for ID-5100 | $98.95 |
| ICO-MBF-4 | Radio Mounting Bracket | $34.95 |
| NIF-ID-5100STAND | Stand for Icom ID-5100 | $26.95 |
| ICO-MBA-2 | Mounting Bracket | $39.95 |
| ICO-CT-17 | Level Converter | $139.95 |
| ICO-OPC-2218LU | PC Control Programming Cable, USB A Plug, to USB Mini, to Stereo 2.5mm Plug | $69.95 |
| ICO-OPC-1529R | PC Control Programming Cable, RS-232, Stereo 2.5mm Male Plug | $32.95 |

ICOM

## IC-2730A VHF/UHF FM Transceiver

Icom's IC-2730A is a full-feature 50 watt dual-bander with a built-in duplexer, so you can use a single dual-band antenna to operate on both 2M and 70cm. The radio also boasts simultaneous VHF/VHF, UHF/UHF and VHF/UHF receive capabilities and 2 external speaker outputs. It uses CTCSS/DTCS tones for quiet stand by and repeater access. That makes this radio easy to use as a mobile or base station. Air band and weather band (with WX alert) coverage adds to the IC-2730A's versatility.

- Cross band repeater capability
- Free programming software
- Sub band auto mute function
- Auto repeater function
- Large, easy-to-read display with intuitive controls



NIF-IC-2730STAND

This radio comes with a remote control microphone, a controller cable, a mic hanger and DC power cable. Upgrading to the Deluxe model adds the MBA-5 Controller Mounting Bracket, which is handy for connecting the control head to other, universal mounts.

| | | |
|---|---|---|
| ICO-IC-2730A | VHF/UHF FM Transceiver | CALL/WEB |
| ICO-IC-2730A-D | VHF/UHF FM Transceiver with MBA-5 Mounting Bracket | CALL/WEB |
| NIF-IC-2730STAND | Nifty Desk Stand for IC-2730A Control Head | $26.95 |
| ICO-MB -2730B | Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-4 and MBF-4 | $84.95 |
| IICO-MB-2730R | Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-5 and MBF-4 | $64.95 |
| ICO-MB-2730R1 | Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-5, MBF-1, and MBF-4; | $148.95 |
| ICO-MBA-4 | Control Head Reattachment Bracket, for IC-2730A | $64.95 |
| ICO-MBA-5 | Suction Cup Mounting Base | $39.95 |
| ICO-MBF-1 | Suction Mount for Mobile XCVR Controller, ICOM ID-5100, -4100, IC-7100, -7000, -2730A | $79.95 |
| ICO-MBF-4 | Mobile Transceiver Mounting Bracket, for IC-2730A | $34.95 |

ICOM

New!

## ID-4100A VHF/UHF Dual Band Digital Transceiver

The ID-4100A provides Terminal and Access Point Modes enabling you to access the D-STAR repeater network through the Internet, regardless of repeater locations. That's a handy feature to have if you do a lot of road-tripping to new areas. The receiver covers 118–174 and 230–550 MHz, plus air band, marine traffic, weather channels and other VHF and UHF public safety and utility communications.

It packs 50 watts, with selectable power steps. Smartphone compatibility and an optional Bluetooth® module (UT-137) enable even more functionality. With an excellent combination of features and price, the ID-4100A is a smart way to get active with D-STAR digital radio.

The ID-4100A-D includes Icom's MBA-8 controller bracket for mobile installation.

| | | |
|---|---|---|
| ICO-ID-4100A | VHF/UHF Dual Band Digital Transceiver | CALL/WEB |
| ICO-ID-4100A-D | VHF/UHF Dual Band Digital Transceiver, MBA-8 Bracket | CALL/WEB |
| ICO-HM-207S | Mobile Hand Microphone with DTMF Keypad | $139.95 |
| ICO-HM-209 | Noise Cancelling Mobile Hand Microphone | $144.95 |
| ICO-HM-232 | Basic Mobile Hand Microphone | $44.95 |
| ICO-MBA-8 | Mobile Transceiver Mounting Bracket | $39.95 |
| ICO-UT-137 | Plug-In Bluetooth® Module | $98.95 |

ICOM

## IC-2300H 2M Single Band Mobile Transceiver

Covers 144-148 MHz transmit with 136-174 MHz receive. Large selectable (amber or green) LCD display with four levels of brightness, backlit keys and a large oversized tuning dial. It includes a remote control microphone, DC power cable and mobile mounting bracket. Power Requirement: 13.8 Vdc @15A Dimensions: 5.5" W x 1.6" H x 5.25" D. Weight: 2.75 lbs.

- 50 CTCSS and 104 x 2 DTCS encode/decode, tone scan function, pocket beep
- Selectable transmit power levels: 65/25/10/5 watts
- 207 alpha tag memories w/call channel
- 24 DTMF autodial memories
- Choice of FM Narrow mode
- Dynamic Memory Scan
- Squelch delay

| | | |
|---|---|---|
| ICO-IC-2300H | 2M Single Band Transceiver | CALL/WEB |
| ICO-CS-2300H | Cloning Software for IC-2300H | $79.95 |
| ICO-MB-28H | Mobile Mounting Bracket | $28.95 |

## Bluetooth® Headset

A lot of states are adopting hands-free mobile device regulations. That means you may not be able to use your mobile radio's speaker mic any more. Icom's got a handy Bluetooth headset to solve that problem. It integrates with the Icom UT-133 Bluetooth Plug-In Module for the IC-2730A and ID-5100 (sold separately). The headset's remote keypad has a traditional PTT switch, plus three programmable function buttons that give you remote radio control.

ICOM

| | | |
|---|---|---|
| ICO-VS-3 | Bluetooth Headset | $148.95 |
| ICO-UT-133 | Bluetooth Plug-In Module | $98.95 |

ICOM

| Accessory | Part Number | Description | ICO-IC-2300H | ICO-IC-2730A | ICO-ID-4100A-D |
|---|---|---|---|---|---|
| Bracket | ICO-MBF-1 | Switch Mount for Control Head | | x | x |
| Cables | ICO-OPC-1132 | Power Cable, DX, T-Style 2-pin, 9.8' | x | | x |
| | ICO-OPC-1156 | Remote Separation Cable, 11.5' | | x | x |
| | ICO-OPC-478UC | PC to Radio Programming Cable, USB | x | x | x |
| | ICO-OPC-589 | Microphone Adapter Cable, 8-pin Modular Plug to 8-pin Round Receptacle | x | x | x |

KENWOOD

### TM-D710G 144/440 MHz Dual-Band Mobile

With APRS standard, Kenwood's TM-D710G 2M/70cm radio is an excellent choice if you want a high performance portable digital transceiver. This true dual-band radio permits VHF+VHF, UHF+UHF and UHF+VHF operation. The TM-D710G packs 50 watts into a compact unit, and the detached control head makes it easy to install in a vehicle. The radio's EchoLink® functionality and built-in GPS make the TM-D710G an invaluable tool for hilltopping and EMCOMM duty. Power output is selectable from 5-50 watts.

KWD-TM-D710G 144/440 MHz Dual-Band Mobile ..... **CALL/WEB**

KENWOOD

### TM-V71A Dual-Band Transceiver

Packed with features like EchoLink® Sysop mode/memory, multiple scan functions, 1,000 memories, and dual-receive capability, the TM-V71A is a user-friendly mobile if you're a 2M/70cm operator. A weather alert function is very handy for SKYWARN duties, or if you cover a lot of highway. This radio is also compatible with ARRL's Travel Plus software. The front control panel can detach from the radio's housing to open up more installation options.

KWD-TM-V71A Dual-Band Transceiver ..... **CALL/WEB**

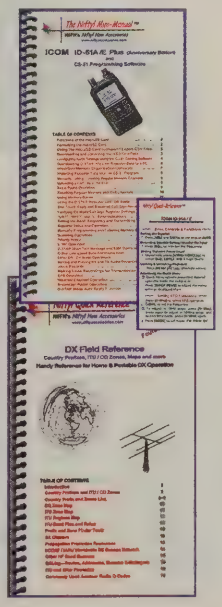
KWD-DFK-3DW Mounting Bracket and Separation Cable ..... **$45.95**

### Mini-Manuals and Quick Reference Cards for Mobile Radios

Nifty! Ham Accessories

Due to their size, mobile transceivers often incorporate a lot of menus and very few physical controls, which means there's always a bit of a learning curve if you're looking at a new radio. Nifty Mini-Manuals and Quick Reference Cards ensure that you'll get up to speed quickly.

| Part Number | Brand | Model | Price |
|---|---|---|---|
| **Mini-Manuals** | | | |
| NIF-MM-DR635 | Alinco | DR-635T | $19.95 |
| NIF-MM-IC2730 | Icom | IC-2730A | $16.95 |
| NIF-MM-ID4100A-E | Icom | ID-4100 | $25.95 |
| NNIF-MM-ID5100 | Icom | ID-5100A | $25.95 |
| NIF-MM-ID880H | Icom | ID-880H | $22.85 |
| NIF-MM-TMD710G | Kenwood | TM-D710G | $22.95 |
| NIF-MM-TMV71A-E | Kenwood | TM-V71A/E | $18.85 |
| NIF-MM-FTM100DR | Yaesu | FTM-100DR | $22.85 |
| NIF-MM-FTM400DR | Yaesu | FTM-400DR/DE | $22.85 |
| NIF-MM-FTM3200DR | Yaesu | FTM-3200DR | $16.95 |
| NIF-MM-FT2900R | Yaesu | FT-2900R | $16.95 |
| NIF-MM-FT1900R | Yaesu | FT-1900R | $16.95 |
| NIF-MM-FT7900R | Yaesu | FT-7900R | $16.95 |
| NIF-MM-FT817ND | Yaesu | FT-817/ND | $16.95 |
| NIF-MM-FT857D | Yaesu | FT-857/D | $16.95 |
| NIF-MM-FT8900R | Yaesu | FT-8900R | $16.95 |
| NIF-MM-FT891 | Yaesu | FT-891 | $20.95 |
| NIF-MM-FT100D | Yaesu | FT-100D | $16.95 |
| NIF-MM-FT8800R | Yaesu | FT-8800R | $16.95 |
| **Quick Reference Cards** | | | |
| NIF-QR-IC2300H | Icom | IC-2300H | $6.95 |
| NIF-QR-TM271-281 | Kenwood | TM-271/281A/E | $6.95 |



KENWOOD

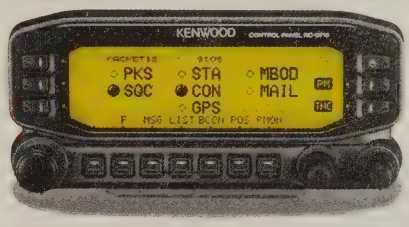
### TM-281A 2 Meter Mobile Transceiver

With a no-nonsense design and intuitive controls, the TM-281A is easy to install and easier to use. The 2M radio supplies 65 watts of power from 144-148 MHz, and it can be stepped down to 25 watts to avoid creating RFI. An extended 136-174 MHz receive range increases the radio's versatility. The radio is bundled with Kenwood's rugged speaker mic with backlit keys. A front-firing speaker makes this radio right at home in your vehicle.

KWD-TM-281A 2 Meter Mobile Transceiver ..... **CALL/WEB**

KENWOOD

### TNC Upgrade Control Head



Easily add Terminal Node Control (TNC) capability to your Kenwood TM-V71A and TM-D710A Mobile FM transceiver. This control head replaces the one originally supplied with your radio, and serves as an AX.25-compliant TNC to enable 1200/9600 bps packet communications.

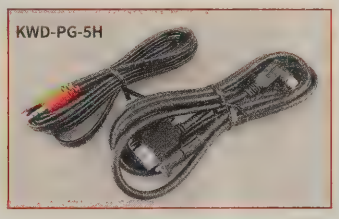
KWD-RC-D710W

Using the optional interface cable, you can even connect this control head between your radio and NMEA-0183 GPS for APRS® functionality. Download Kenwood's free MCP-2A Memory Control Program, hook up the optional PC interface cable, and you can easily edit and manage your APRS settings.

This control head will also work as a stand-alone TNC (sans APRS functions) for these popular Kenwood Radios:

TM-D700A
TM-V708A
TM-G707A
TM-V7A
TM-733A
TM-255A
TM-455A

KWD-PG-5H



Visit DXEngineering.com to read all about the benefits of upgrading your radio with Terminal Node Control capability.

KWD-RC-D710W TNC Upgrade Control Head ..... **$299.95**

KWD-PG-5G GPS Interface Cable for APRS Functionality ..... **$36.95**

KWD-PG-5H PC Interface Cable for APRS Functionality ..... **$56.95**

KWD-KPG-46U PC Control Programming Cable, USB to 8-pin Mini-DIN .... **$49.95**

KENWOOD

| Accessory | Part Number | Description | KWD-TM-281A | KWD-TM-D710A | KWD-TM-V71A |
|---|---|---|---|---|---|
| Adapter | KWD-MJ-88 | Mic Interface Cable, RJ45 to 8-pin Round Receptacle | x | x | x |
| Cables | KWD-PG-5F | Separation Cable Kit, DC Power Cable, Modular Cables, Filters | | x | x |
| | KWD-PG-2N | DC Power Cable, T-Style, 2-pin, 2 Inline Fuse Holders | x | x | x |
| Noise Filter | KWD-PG-3B | Filter, Fits Between Vehicle Battery and Mobile Radio | x | x | x |
| Speaker Microphone | KWD-MC-59 | Mobile Mic, 8-pin Modular Plug | x | x | x |
| Voice Guide | KWD-VGS-1 | Plug-In Module, Voice Synthesizer and Recorder | | x | x |
| Voice Synthesizer | KWD-VS-3 | Plug-In Module, Voice Synthesizer | | x | x |

ALINCO

### DR-B185HT VHF Mobile/Base Transceiver

Boasting up to 85 watts of RF power, Alinco's new DR-B185 lets you practically own the 2 meter band. And it comes in a tiny package, which means you won't have trouble fitting it in your vehicle or on your desktop. The radio is intuitive, easy to use and delivers excellent audio response.

- Comprehensive scanner function
- Wide and narrow FM modes
- 500 memory channels
- High and low power settings
- 39-tone CTCSS/DCS/2-tone encode and decode
- Tone-burst and auto-dialer

An optional cloning cable is available to make programming the radio quick and straightforward.

ALO-DR-B185HT VHF Mobile/Base Transceiver ..... **CALL/WEB**

ALINCO

### 2M/70cm Mobile Transceiver

This versatile new radio from Alinco supports full duplex for true dual-band functionality and cross-band repeat. The DR-735 packs a wide range of adjustable parameters, from RF output to LCD screen color. The detachable controller allows for easy installation, while the heavy-duty base unit features plenty of integrated heat sinks for stability and long-term durability. It also boasts wide and narrow ceramic filters for narrow band operation. Find up-to-date specs at DXEngineering.com.

ALO-DR-735T 2M/70cm Mobile Transceiver ..... **CALL/WEB**
ALO-EDS-30 Front Control Unit Separation Cable Kit ..... **$54.95**
ALO-EDS-8 Microphone Adapter for EMS-14 Desk Mic ..... **$29.95**
ALO-EMS-79 DTMF Hand Mic ..... **$67.95**

ALINCO

### DR-03T and DR-06T VHF FM Transceivers

The new DR-03T and DR-06T build upon Alinco's legendary series of mobile radios. They're loaded with features that you don't often find in this price range.

- 100 memory channels
- Theft alarm feature
- Ten autodial memories
- 7 character alphanumeric display
- Wide and narrow FM modes
- CTCSS, DCS encode and decode, DTMF encode and tone-burst

Packing 10 watts of RF power, the DR-03T is an excellent choice for mobile 10M operation. The DR-06T is a 6M radio with 50 watts of output. The DR-06T's optional EJ-41U TNC board permits 1200/9600 bps digital packet operation. The DR-06T also has a handy front panel data port and rear panel DSUB9 computer connection. The radios come with Alinco's commercial-grade backlit microphone with a metal connector.

ALO-DR-03T 10M VHF FM Transceiver ..... **CALL/WEB**
ALO-DR-06T 6M VHF FM Transceiver ..... **CALL/WEB**

ALO-DR-235TMKIII

ALINCO

### Monoband Mobile/Base Transceivers

With 50 watts of power, available in 3 steps, the DR-135/235/435 series radios are great for mobile or portable operations. Their compact size belies the radios' feature laden resume. The DR-135TMKIII includes a backlit microphone with a metal connector, plus a direct frequency input and direct multi-function access. That means you can adjust the call channel, power setting, memory to VFO, and more.

- 100 memory channels
- Front panel data port
- Rear panel DSUB9 computer connection
- 10 autodial memories
- Wide and narrow FM modes (16K0 & 8K50F3E)
- Super-wide alphanumeric display
- CTCSS, DCS encode and decode, DTMF encode and tone-burst

ALO-DR-135TMKIII 2 Meter Monoband Mobile Base Transceiver ..... **CALL/WEB**
ALO-DR-235TMKIII 1.25 Meter Monoband Mobile Base Transceiver ..... **CALL/WEB**
ALO-DR-435TMKIII 70cm Monoband Mobile Base Transceiver ..... **CALL/WEB**

ALINCO Mobile Transceivers

| Accessory | Part Number | Description | ALO-DR-135TMKIII (2M) | ALO-DR-235TMKIII (2M) | ALO-DR-435TMKIII (2M) | ALO-DR-635TV (220 MHz) | ALO-DR-735T (70cm) | ALO-DR-03T (2M/70cm) | ALO-DR-06T (2M/70cm) | ALO-DR-B185HT (10M) | ALO-DR-B185HT (6M) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Board | ALO-EJ-47U | Digital Voice Board | x | x | | x | | x | x | | x |
| Cables | ALO-EDC-37 | DC Cable Only, No Cigar Plug | x | x | | x | x | | | | x |
| | ALO-EDC-43 | Cigar Cable with Charger | x | x | | x | x | | | | x |
| | ALO-ERW-4C | PC Interface Cable, Serial | x | x | | x | | x | | | |
| | ALO-ERW-7 | PC Interface Cable, USB | x | x | x | x | | x | x | | |
| Speaker Mic | ALO-EMS-74 | Mobile Mic, 8-pin DIN | x | x | | x | x | x | | | |
| Microphone | ALO-EMS-53 | Mobile Microphone | x | x | x | | | | | x | x |

ALINCO

### DR-635TV Mobile/Base VHF/UHF Transceiver/Expanded Range Receiver

Alinco included a cross-band repeat function in this versatile radio, which means it can be useful in for simplex nets. The transmit coverage is from 144-147.995 and 430-449.995 MHz. The radio's expanded receive range lets you listen from 108-173.995 and 335-480 MHz. It packs 50 watts, in 3 power levels and has a built-in duplexer to simplify installation. Adding the optional EJ-47U Digital Modulation unit enables digital voice communications.

- 100 memory channels
- CTCSS, DCS encode and decode, DTMF encode and tone-burst
- 7 character alphanumeric display
- Wide and narrow FM modes
- Ten autodial memories

ALO-DR-635TV Mobile/Base VHF/UHF Transceiver ..... **CALL/WEB**
ALO-ADFM78 Mobile Bracket ..... **$20.95**
ALO-EDS-9 Front Panel Kit ..... **$54.95**

## ALINCO

### Wide Band Communications Receiver

Carry 0.05 to 1299.995 MHz receive capabilities anywhere you go! The DJ-X11 ET lets you listen to two separate channels simultaneously. Plus, you can also plug this into your PC with third-party software and use the DJ-X11T as an SDR.

It features a built in ferrite bar antenna for AM broadcasts and a rubber duck for VHF/UHF; you'll probably want to use an external antenna for serious HF reception. Two big dials and voice feedback make the radio easy to use. It includes a Li-Ion battery pack and charger.

| | | |
|---|---|---|
| ALO-DJ-X11T | Wide Band Communications Receiver | CALL/WEB |
| ALO-EBP-74 | Li-Ion Battery Pack, 1800mAh/3.7V | $45.95 |
| ALO-EDH-36 | Dry Cell Case | $23.95 |
| ALO-ERW-8 | Cable for IQ | $49.95 |
| ALO-EME-6 | Earphone with 3.5mm Plug | $12.50 |
| ALO-EDS-12 | Wire Remote Controller | $29.95 |
| ALO-ESC-50 | Soft Case | $27.95 |
| ALO-ERW-4C | PC Interface Cable (Serial) | $39.95 |
| ALO-ERW-7 | PC Interface Cable (USB) | $44.95 |

### Desk Stands

These stands from Nifty have a heavy steel base to keep your radio and its front panel safe and secure on your desktop. The proper stand will also position the controls right where you want them. The HT stand's shelf is adjustable to fit most handhelds with a belt clip. Nifty also has several model-specific stands, see list below.

| | | |
|---|---|---|
| NIF-HT-STAND | HT Radio Desk Stand | $34.85 |
| NIF-ID-5100STAND | Stand for Icom ID-5100 | $25.95 |
| NIF-IC-2730STAND | Stand for Icom IC-2730A | $25.95 |
| NIF-FTM400DRSTAN | Stand for Yaesu FTM-400DR; | $23.95 |
| NIF-DS-KX2 | Stand for Elecraft KX2 | $25.95 |
| NIF-KX3-STAND | Stand for Elecraft KX3 | $24.95 |
| NIF-PX3-STAND | Stand for Elecraft PX3 Add-On | $23.95 |

**Universal Desk Stand**

| | | |
|---|---|---|
| NIF-DS-WB-UNIV | Desk Stand, Universal Wire Bale, Designed to Fit Any Radio That Has a Foldable Wire Stand | $19.95 |

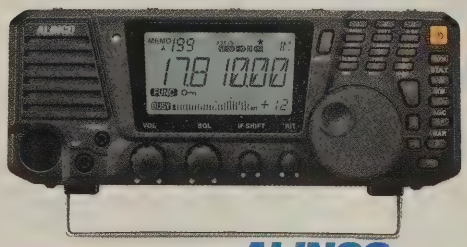
## ICOM

New!

### IC-R8600 Wideband Digital Receiver

The all-new software-designed IC-R8600 covers an impressive 0.01 to 3000 MHz, and will receive a wide range of analog and digital modes, like D-STAR, P25, NXDN and dPMR. The IC-R8600 packs several improvements, like a larger 4.3 inch touchscreen with a fast moving spectrum scope and waterfall display. Advanced FPGA processing provides enhanced signal clarity and accuracy. I/Q signal output allows use of third-party SDR software and external decoding.

| | | |
|---|---|---|
| ICO-IC-R8600 | Wideband Digital Receiver | CALL/WEB |



## ALINCO

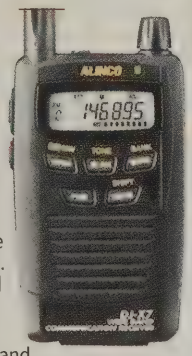
### DX-R8T SDR LW/MW/SW Amateur Radio Desktop Receiver

With simple, straightforward controls, you can start enjoying worldwide radio signals the minute you turn the DX-R8T on. It's extremely sensitive and covers 0.15 to 30 MHz. The radio receives USB/LSB, AM, CW and FM. Download Alinco's free software, and you can output the radio's I/Q signal to your PC's sound card and decode DRM signals too.

The DX-R8T is a great standalone SWL radio, but it's also perfectly at home in your shack as a dedicated receiver for the Ham bands. This receiver is packed with features and performance that you simply don't see at this price. Visit DXEngineering.com to see the specs.

| | | |
|---|---|---|
| ALO-DX-R8T | SDR LW/MW/SW Amateur Radio Desktop Receiver | CALL/WEB |
| ALO-EDS-17 | Front Panel Remote Mounting Kit | $59.95 |
| ALO-EDC-37 | DC Cable Only, No Cigar Plug | $9.95 |
| ALO-ERW-4C | PC Interface Cable (Serial) | $39.95 |
| ALO-ERW-7 | PC Interface Cable (USB) | $44.95 |

## ALINCO



### Ultra-Slim Wide Band Communications Receiver

The thin profile of Alinco's DJ-X7T means you can slip this in your pocket and never be without 0.1-1299.995 MHz receive coverage. It has 1,000 memories, and keeping them all sorted is easy when you use Alinco's free downloadable software. The broadcast bands are pre-loaded too, so you'll have quick access AM/FM and TV audio.

| | | |
|---|---|---|
| ALO-DJ-X7T | Ultra-Slim Wide Band Communications Receiver | CALL/WEB |
| ALO-ERW-4C | PC Interface Cable (Serial) | $39.95 |
| ALO-ERW-7 | PC Interface Cable (USB) | $44.95 |
| ALO-EDH-32 | Cigar Lighter Cable | $17.95 |
| ALO-EBP-58N | Li-Ion Battery Pack | $27.95 |
| ALO-ESC-38 | Soft Case | $16.95 |
| ALO-EME-18 | Earphone | $15.95 |
| ALO-EME-25 | Curly Cord Earphone | $13.95 |

## ICOM

New!

### Coming Soon—Icom IC-R30 Wideband Scanning Receiver

Building on the popularity of the IC-R20, the IC-R30 incorporates several all-new features. It retains a compact and rugged design, and will permit dual reception—including a combination of analog and digital signals. The receiver is compatible with AM, FM, SSB, CW and WFM, plus several digital modes including D-STAR.

| | | |
|---|---|---|
| ICO-IC-R30 | Wideband Scanning Receiver | CALL/WEB |

## ICOM

New!

### IC-R6 SPORT Communications Receivers

Carry a mammoth frequency range in the palm of your hand—from 0.100 to 1309.995 MHz! That includes utility and government communications, Amateur Radio, AM, FM, and shortwave broadcast stations. A clever voice squelch control makes it easy to pick out the voices from the cacophony of data bursts and beacons. It has 1,300 memory channels and robust scanning capabilities.

The IC-R6 Sport has a built-in ferrite bar antenna for AM broadcast and a large, backlit LCD screen. It's powered by 2 AA batteries (not included) or via optional power cords. The IC-R6 comes in three colors.

| | | |
|---|---|---|
| ICO-IC-R6SPORT | IC-R6 Sport Communications Receiver, Black | CALL/WEB |
| ICO-IC-R6SPORTBU | IC-R6 Sport Communications Receiver, Blue | CALL/WEB |
| ICO-IC-R6SPORTRD | IC-R6 Sport Communications Receiver, Red | CALL/WEB |

## YAESU

### 2M/70cm Dual-Band C4FM Digital Handheld Transceiver

This HT is packed with digital features, yet is still wonderfully easy to use. A massive 1.7" touchscreen panel lets you easily navigate the intuitive menus. The radio has a built-in GPS with logging capabilities, 1200/9600 bps APRS® functionality, and dual watch/dual monitor modes. The FT-2DR also features a band scope, digital group monitor function, a data terminal and Micro SD card slot. It comes with a Li-Ion battery and charger.

| | | |
|---|---|---|
| YSU-FT-2DR | 144/430 MHz Dual-Band C4FM Digital HT | CALL/WEB |
| YSU-SHC-24 | Soft Carrying Case | $19.95 |
| YSU-CT-168 | Interface/Cloning Cable | $24.95 |
| YSU-MH-85A11U | Speaker Mic with Snapshot Camera | $139.95 |

## BridgeCom SYSTEMS

New!

### BCH-220 Handheld 1.25 Meter Transceiver

Missing out on the 1.25M action? This affordable HT is your solution. With 25 kHz (wideband) and 12.5 kHz (narrowband) coverage on 1.25 meters, the BCH-220 is an easy way to operate 220 MHz. It's rugged yet lightweight and packs 5 watts of RF power. Plus, the extended 219.000-259.995 MHz receive range adds to its versatility. The BCH-220 comes with a battery pack and desktop charger.

| | | |
|---|---|---|
| BGM-BCH-220 | Handheld 1.25 Meter Transceiver | $85.00 |
| BGM-BCH-CABLE | Programming Cable | $25.00 |

### Expert Advice and Support.

Whether you're a Technician, General or Extra, our team of licensed operators is ready to offer advice and help you assemble your dream station. Check out pages 30-31 for Headsets and Speakers.

## YAESU

### 6M/2M/70cm Tri-Band Heavy-Duty FM APRS Handheld Transceiver

With full APRS®/GPS/Bluetooth® capability, plus TX/RX coverage on the 6M band, this could very well be the last HT you buy. Its built-in barometer/altimeter sensor keeps you abreast of weather changes, and the APRS function allows you to send/receive information (like heading, distance, icons, WX info) with other radios—an optional GPS unit expands this capability.

Extended receive coverage includes the shortwave, VHF TV and AM/FM broadcast bands. The VX-8DR is a true dual-band radio, permitting VHF+VHF, UHF+UHF and VHF+UHF operation. Intuitive controls and a large LCD screen make the VX-8DR very easy to use.

| | | |
|---|---|---|
| YSU-VX-8DR | 6M/2M/70cm Tri-Band FM APRS Handheld Transceiver | CALL/WEB |
| YSU-CSC-93 | Soft Carrying Case | $19.95 |
| YSU-MH-74A7A | Waterproof Speaker Mic | $69.95 |
| YSU-CT-131 | Mic Adapter Cable, Single Pin to Waterproof Speaker/Mic | $39.95 |
| YSU-CT-134 | Cloning Cable | $39.95 |
| YSU-CT-136 | GPS Antenna Adapter | $49.95 |

## YAESU

### FT-65R VHF/UHF and FT-25R VHF Handheld Transceivers

Small and lightweight yet darn-near bulletproof, Yaesu built these new handhelds to stand up to harsh use. They come in two flavors, the FT-65R covers the 2 meter and 70cm bands, while the FT-25R is dedicated solely to 2 meter operation.

RF power is selectable in 0.5, 2.5 and 5 watt steps, and the front firing speaker is backed by a full watt of audio amplification. Each radio features a programmable VFO scan, priority channel scan, WX channels/WX alert, LED flashlight, CTCSS/DCS, and an FM broadcast receiver. They come with a 1,950 mAh Li-Ion battery and a rapid charger—all at a very attractive price tag.

| | | |
|---|---|---|
| YSU-FT-65R | 2M/70cm Handheld Transceiver | CALL/WEB |
| YSU-FT-25R | 2M Handheld Transceiver | CALL/WEB |
| YSU-SSM-512B | Earpiece Mic | $29.95 |
| YSU-SBR-25LI | Battery Pack, 1,950 mAh | $39.95 |
| YSU-SBR-26LI | Battery Pack, 2,500 mAh | $49.95 |
| YSU-SBH-22 | Rapid Charger | $19.95 |
| YSU-SAD-20 | AC Adapter | $19.95 |
| YSU-SCU-36 | Cloning Cable | $19.95 |
| YSU-SCU-35 | Programming Cable | $19.95 |

## Lido

### Cup Holder Mount

Here's a mounting solution that doesn't involve drilling or glue. The LM-801 settles into any cup holder. Then, with the twist of a knob, its base expands for a secure connection. Whether it's a mobile remote head or a handheld, this mount may be the perfect answer for your mobile installation.

| | | |
|---|---|---|
| LDO-LM-801EXP | Cup Holder Mount | $24.95 |

## YAESU

### 2M/70cm Heavy-Duty Dual-Band Ultra-Compact FM Handheld Transceiver

Ideal for severe field use, the VX-6R can withstand vibration, impacts and immersion in water. The simplified controls make it easy to access the radio's impressive list of features, including Emergency Automatic ID, VFO scanning and a battery saver/battery wake-up. Add the optional weather sensors and you'll get automatic weather updates as well. And expanded receive range covers 10 NOAA WX channels, shortwave broadcast and marine channels. It's small too, about the size of a deck of playing cards.

| | | |
|---|---|---|
| YSU-VX-6R | 144/430 MHz Heavy-Duty Dual-Band Ultra-Compact FM HT | CALL/WEB |
| YSU-CSC-91 | Soft Carrying Case | $19.95 |
| YSU-FNB-80LI | Li-Ion Battery Pack, 1,250mAh | $79.95 |
| YSU-FBA-23 | Battery Case, Fits 2 AA Batteries | $39.95 |
| YSU-SU-1 | Altimeter and Barometer Sensor | $44.95 |
| YSU-CD-15A | Rapid Charger | $49.95 |

## YAESU

### FT-70DR C4FM FDMA FM Dual Band Handheld Transceiver

Packing Yaesu's exclusive System Fusion digital protocol, the all-new FT-70DR gives you both analog and digital capabilities with a very attractive price tag. Using Yaesu's clever Automatic Mode Select (AMS) function, the FT-70DR will automatically switch transmit modes depending on the received signal. A multi-color LED light provides quick, intuitive indication of the radio's current mode.

This new handheld also incorporates a digital group monitor function, which allows operators to create and communicate with specific digital groups. The FT-70DR operates on the 2M/70cm bands with a 108 to 579.995 MHz extended receive range. The radio has up to 5 watts (selectable) of RF transmit power.

| | | |
|---|---|---|
| YSU-FT-70DR | C4FM FDMA FM Dual Band HT | CALL/WEB |
| YSU-SAD-18B | Replacement Charger | $29.95 |
| YSU-SBH-28 | Rapid Charger | $29.95 |
| YSU-SBR-24LI | Li-Ion Battery Pack | $39.95 |
| YSU-SHC-27 | Soft Carrying Case | $19.95 |

## HEIL SOUND

### Handie-Talkie Headsets

Designed precisely for Amateur Radio handhelds, these Heil headsets let you work hands-free in the field. The slim, low profile design is discreet and lightweight, which means the headsets can be worn comfortably for hours. The single earpiece can be positioned on the left or right side. The headsets have a standard PTT switch. Select the one appropriate for your radio model below.

| | | |
|---|---|---|
| HLS-HTH-I | HT Headset for Icom 2-pin Plug | $29.00 |
| HLS-HTH-K | HT Headset for Kenwood 2-pin Plug | $29.00 |
| HLS-HTH-Y | HT Headset for Yaesu TRRS Plug | $29.00 |

# YAESU

### 70cm Single Band Handheld Transceiver

Compact and rugged, this radio offers exceptional performance with a minuscule price tag. It boasts an extended receive range and loud, clear audio response. A large LCD screen, smart search and intuitive controls make this no-hassle HT a joy to use. It packs 5 watts of transmit power.

The FT-257 also incorporates Yaesu's clever automatic transponder system developed for search-and-rescue operations. Here's how it works in a nutshell: which when paired with an assigned "base" radio, the FT-257 "scout" radio will beep when it's moving out of communications range.

| | | |
|---|---|---|
| YSU-FT-257 | 430 MHz Single Band Handheld Transceiver | CALL/WEB |
| YSU-FNB-124LI | Li-Ion Battery Pack | $39.95 |
| YSU-CD-57 | Charging Cradle | $29.95 |
| YSU-SDD-11 | Vehicle Cigarette Lighter Power Cable | $34.95 |

# YAESU

### 2M Single Band Handheld Transceiver

This monoband HT is a no-nonsense approach to getting on the 2 meter band. It's durable and waterproof to IPX7 standards, and has power-saving features to extend the battery's already lengthy life. The FT-270R has Yaesu's automatic transponder system and Emergency Automatic ID features. You'll also enjoy an extended receive range that includes ten NOAA weather channels and WX alert capability. For security, there's a keypad lock with password option. This radio also provides one-touch access to Yaesu's WiRES-II™ VoIP Linking System.

For added versatility, there's a DTMF Paging Plug-In Module, which allows you to selectively call a specific station and to receive calls directed specifically to you.

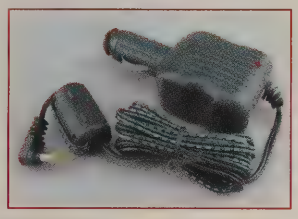
| | | |
|---|---|---|
| YSU-FT-270R | 2M Single Band Handheld Transceiver | CALL/WEB |
| YSU-PA-43B | AC Adapter/Charger | $14.95 |
| YSU-CD-47 | Rapid Desktop Charger, Requires PA-43B | $22.95 |
| YSU-CD-26 | Charging Cradle | $29.95 |
| YSU-FTD-7 | DTMF Paging/Decoding Plug-In Module | $59.95 |

# YAESU

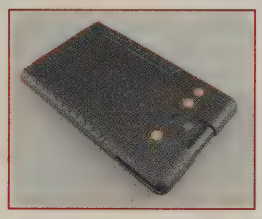
### 2M/70cm MHz Dual-Band Handheld Transceiver

Armed with wide-band (108-520, 700-999.99 MHz) receiver coverage, Yaesu's FT-60R is an excellent option for listening in the field. It packs 5 watts of power in a small package, so you can stash it in your glovebox or go kit. What makes this HT really unique is Yaesu's Emergency Automatic ID feature originally developed for search-and-rescue missions. When active, it causes the radio of the recipient (who is presumably lost or incapacitated) to transmit, giving search units a chance to listen for the radio.

| | | |
|---|---|---|
| YSU-FT-60R | 144/430 MHz Dual-Band Handheld Transceiver | CALL/WEB |
| YSU-VAC-370B | Rapid Charger | $78.95 |
| YSU-CT-27 | Interface/Cloning Cable | $13.95 |



YSU-SDD-13



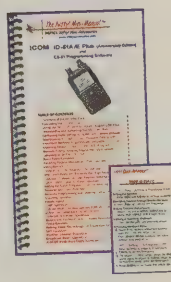
YSU-FNB-83

YSU-MH-34B4B

# YAESU

| Accessory | Part Number | Description | YSU-FT-90R | YSU-FT-270M | YSU-FT-257 | YSU-VX-8 | YSU-VX-8DR | YSU-FT-70R | YSU-FT-1XD |
|---|---|---|---|---|---|---|---|---|---|
| Coax Adapter | YSU-CN-3 | Coaxial Cable Adapter, BNC (F) to SMA (M) | x | x | x | x | x | x | x |
| Battery Packs | YSU-FNB-83 | Ni-MH Battery Pack, 7.2V, 1,400mAh | x | x | | | | | |
| | YSU-FNB-101LI | Li-Ion Battery Pack, 7.4V, 1,100mAh | | | | | x | x | x |
| | YSU-SBR-14LI | Li-Ion Battery Pack, 7.2V, 2,200mAh | | | | | x | x | x |
| Battery Cases | YSU-FBA-25A | Battery Case, Holds 6 AA Batteries | x | x | | | | | |
| | YSU-FBA-39 | Battery Case, Holds 3 AA Batteries | | | | | x | x | x |
| AC Adapter | YSU-PA-48B | AC Adapter | x | x | x | x | x | x | x |
| Chargers | YSU-SBH-13B | Charging Cradle, 4 Hours, Requires YSU-PA-48B | x | x | | | | | |
| | YSU-CD-41 | Rapid Charging Cradle | | | | | x | x | x |
| Cables | YSU-SDD-13 | DC Cable, Car Cigar Lighter Plug with Noise Filter | x | x | | x | x | x | x |
| | YSU-E-DC-6 | DC Cable, with Plug | x | x | x | x | x | x | x |
| | YSU-CT-44 | Mic Adapter Cable, 2-conductor (F) to TRRS Plug | x | | | | | x | x |
| | YSU-CT-91 | Mic Adapter Cable, Dual-pin to Single-pin | | x | | x | | | |
| | YSU-SCU-19 | PC Connection Cable & Software, USB | | | | | | x | x |
| | YSU-CT-169 | PC Connection Cable, D-sub 9 | | | | | | x | x |
| | YSU-CT-170 | Data Cable, Mini I/O 11-pin to 2.5mm | | | | | | x | x |
| Speaker Mics | YSU-MH-34B4B | Speaker Mic | x | | | | | x | x |
| | YSU-MH-73A4B | Speaker Mic, Waterproof | | x | | x | | | |
| | YSU-MH-57A4B | Speaker Mic with Swivel Clip & 3.5mm Audio Jack | | x | | x | | | |
| Belt Clip | YSU-SHB-13 | Belt Clip, for YSU-SBR-14LI Battery Pack | | | | | x | x | x |

## Nifty! Ham Accessories



### Mini-Manuals and Quick Reference Cards for HTs

Spiral bound and laminated, Nifty's Mini-Manuals are a great way to get acclimated with your radio quickly. Nifty also makes Quick Reference Cards that are small enough to fit in a wallet, yet contain a wealth of information to help you get the most from your radio. Popular radios are listed below; many more are available at DXEngineering.com.

| Part Number | Brand | Model | Price |
|---|---|---|---|
| **Mini-Manuals** | | | |
| NIF-MM-DJG7T | Alinco | DJ-G7T | $22.25 |
| NIF-MM-DJG29 | Alinco | DJ-G29T | $22.25 |
| NIF-MM-DJV57 | Alinco | DJ-V57T | $19.95 |
| NIF-MM-ID31A | Icom | ID-31A/E | $24.95 |
| NIF-MM-ID51A | Icom | ID-51A/E | $25.95 |
| NIF-MM-ID51APLUS | Icom | ID-51A Plus | $25.95 |
| NIF-MMID51APLUS2 | Icom | ID-51A Plus2 | $25.95 |
| NIF-MM-IC80AD | Icom | IC-80AD | $24.25 |
| NIF-MM-IC91AD | Icom | IC-91A/AD, IC-E91 | $22.25 |
| NIF-MM-IC92AD | Icom | IC-92A/AD, IC-E92 | $24.25 |
| NIF-MM-THD74A | Kenwood | TH-D74A/E | $24.95 |
| NIF-MM-THD72A | Kenwood | TH-D72A/E | $24.25 |
| NIF-MM-THF6A | Kenwood | TH-F6A | $21.85 |
| NIF-MM-FT1DR | Yaesu | FT-1DR | $24.95 |
| NIF-MM-FT2DR | Yaesu | FT-2DR | $24.95 |
| NIF-MM-VX6R | Yaesu | VX-6R | $20.85 |
| NIF-MM-VX7R | Yaesu | VX-7R | $20.85 |
| NIF-MM-VX8DR | Yaesu | VX-8DR | $24.25 |
| NIF-MM-VX8GR | Yaesu | VX-8GR | $24.25 |
| NIF-MM-VX8R | Yaesu | VX-8R | $24.25 |
| **Quick Reference Cards** | | | |
| NIF-QR-DJ500 | Alinco | DJ-500T/E | $6.95 |
| NIF-QR-ICT70 | Icom | IC-T70A/E | $6.95 |
| NIF-QR-ICV80 | Icom | IC-V80/E | $6.95 |
| NIF-QR-THK20-K40 | Kenwood | TH-K20A/ K40A | $6.95 |
| NIF-QR-FT60R | Yaesu | FT-60R | $6.95 |
| NIF-QR-FT270 | Yaesu | FT-270R | $6.95 |
| NIF-QR-FT252-257 | Yaesu | FT-252/257 | $6.95 |
| NIF-QR-VX3R | Yaesu | VX-3R | $7.85 |

KWD-TH-K20A

KWD-TH-D72AK

KWD-TH-D74A

ALO-DJ-G7T

ALO-DJ-500T

## KENWOOD

### *TH-K20A 144 MHz Handheld Transceiver*

Get 5.5 watts of power in a 2M handheld small enough to slip into your pocket. This is a great workhorse HT for situations where you need simple, clear communications from an easy-to-use radio. Kenwood also made the TH-K20A rugged and durable, meeting several stringent environmental and water resistance industry standards in the process. It's compact and robust, with 200 memory channels, multiple scan modes, wide/narrow channel spacing, and a backlit screen and keyboard. It comes with a Li-Ion battery pack and desktop cradle charger.

KWD-TH-K20A.....**CALL/WEB**

## KENWOOD

### *TH-D72AK Dual-Band Handheld Transceiver*

Thanks to its built-in SiRFstar III GPS receiver, this is an excellent 2M/70cm radio for hikers, bikers and campers. This 5 watt handheld is compatible with APRS® data communications to deliver accurate position and weather information. The TH-D72A also packs 9 scan modes, 1,000 memory channels and DX cluster tune. The radio comes with a long-life Li-Ion rechargeable battery pack.

KWD-TH-D72AK.....**CALL/WEB**

## KENWOOD

### *TH-D74A Digital Tri-band Handheld Transceiver*

This HT boasts 2M, 1.25M and 70cm coverage with wide-band and multi-mode reception. Its built-in APRS-compliant GPS unit is ideal for portable operations. It is also D-STAR voice and data compatible.

The tri-bander packs a DSP tailored precisely to enhancing the human voice range. A built-in IF filter provides excellent SSB/CW reception. The radio has microSD internal storage and connects to a PC easily via micro USB port. Bluetooth® compatibility is standard. It is weatherproof to IP54/55 standards.

KWD-TH-D74A ..... **CALL/WEB**

## ALINCO

### *DJ-G7T 2M/70cm/23cm FM Tri-Band Handheld Transceiver*

Enjoy full duplex receive on three VHF/UHF bands. The DJ-G7T's impressive receive range covers 530 kHz to 1299.995 MHz (824-849.995 MHz are blocked). That means you can listen in to aviation and broadcast bands. The radio has a built-in AM bar antenna and a large, easy to read LCD display. A wide range of adjustable parameters makes this radio uniquely customizable. It is compatible with Alinco's free downloadable cloning software, and comes with a Li-Ion pack and charger.

ALO-DJ-G7T..... **$289.95**

## ALINCO

### *DJ-500T 2M/70cm FM Dual-Band Handheld Transceiver*

The DJ-500T is designed for operators who need a ton of features crammed into a durable and rugged HT. The radio boasts 5 watts of power and 200 memory channels. The DJ-500T also permits semi-duplex dual-band operation. It includes a Li-Ion battery pack and charger. Multiple scanning modes and a large alphanumeric display make this radio easy to set up and use. You can also clone this radio quickly using Alinco's free software.

ALO-DJ-500T.....**$99.95**

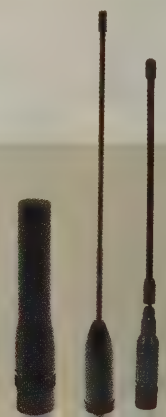
## KENWOOD

| Accessory | Part Number | Description | KWD-TH-D72AK | KWD-TH-K20A | KWD-TH-D74A |
|---|---|---|---|---|---|
| Battery Packs | KWD-PB-45L | Li-Ion Battery Pack, 1,800 mAh | x | | |
| | KWD-KNB-63L | Li-Ion Battery Pack, 1,130 mAh | | x | |
| | KWD-KNB-65L | Li-Ion Battery Pack, 1,520 mAh | | x | |
| | KWD-KNB-74LW | Li-Ion Battery Pack, 1,100 mAh | | | x |
| | KWD-KNB-75LW | Li-Ion Battery Pack, 1,800 mAh | | | x |
| Battery Cases | KWD-BT-15 | Battery Case, Holds 6 AAA Batteries | x | | |
| | KWD-BT-16 | Battery Case, Holds 6 AAA Batteries | | x | |
| | KWD-KBP-9 | Battery Case, Holds 6 AAA Batteries | | | x |
| Speaker Mics | KWD-SMC-32HM | Speaker Mic, 2-pin Connector | x | x | |
| | KWD-SMC-34 | Speaker Mic, Function Keys, Vol. Control, 2-pin Connector | x | x | |
| | KWD-KMC-45D | Speaker Mic | | | x |
| Headsets | KWD-KHS-26 | Single Earbud with Clip-On Mic and PTT Switch | x | x | |
| | KWD-KHS-22 | Headset, Single On-Ear Speaker, Boom Mic, PTT Switch | x | x | |
| Rapid Chargers | KWD-KSC-32 | Rapid Desktop Charger | x | | |
| | KWD-KSC-35S | Rapid Desktop Charger | | x | |
| | KWD-KSC-25LSK | Rapid Desktop Charger | | | x |
| Cables | KWD-PG-3J | Cigarette Power Adapter with Noise Filter | x | x | |
| | KWD-PG-2W | DC Power Cable, Bare Ends, In-Line Fuses | x | | |
| | KWD-PG-4Y | Serial Programming Cable, RS232 to 2-pin Connector | | x | |
| Case | KWD-SC-55 | Soft Carrying Case | x | | |

## ALINCO

| Accessory | Part Number | Description | ALO-DJ-G7T | ALO-DJ-V2T |
|---|---|---|---|---|
| Cables | ALO-EDC-36 | Cigar Cable with Filter | x | x |
| | ALO-EDC-43 | Cigar Cable with Charger | x | x |
| | ALO-EDS-10 | Plug Conversion Cable | x | x |
| | ALO-EDS-14 | Mic Conversion Cable | x | x |
| | ALO-ERW-4C | PC Interface, Serial | x | x |
| | ALO-ERW-7 | PC Interface, USB | x | x |
| Cloning Cable | ALO-EDS-11 | Cloning Cable | x | x |
| Speaker Mic | ALO-EMS-62 | Speaker Mic | x | x |

DIAMOND ANTENNA COMET Maldol MFJ



**Duck and Coverage.** If you've ever heard a Ham Radio operator refer to a "rubber duckie," they're talking about the small, rubber antenna that most handheld radios leave the factory with. Though a rubber duckie boasts a solid blend of performance, size and durability, there are other antenna options that offer improved gain and signal reception. Aftermarket antennas are an affordable way to squeeze the most performance from your handheld radio. We carry a wide range of HT antennas from manufacturers like Comet, Diamond and MFJ. Check out the Handheld Antennas section near the back of this catalog.

ALO-DJ-V27T

ALINCO

### 1.25M FM Monoband Handheld Transceiver

As the next generation of Alinco HTs, this 4.5 watt radio offers exceptional monoband 220 MHz performance in a rugged and durable package. It's loaded with two-touch repeater access, 200 memories and a vibrant backlit display, which means you can throw this radio in your go kit and have peace of mind. The radio comes with 9 CTCSS tone squelch (encoding and decoding) and a tone-burst function. It includes a NiMH battery pack and charger, and works with Alinco's free downloadable cloning software.

ALO-DJ-V27T ..... **$144.95**

ICOM

ICO-IC-T70A

### IC-T70A-HD Dual-Band FM Transceiver

Icom's IC-T70A-HD Dual-Band FM Transceiver gives you 5 watts of RF power on 2M and 70cm in a small, lightweight package. It also has an internal VOX function for hands-free operation when used with an optional headset and plug-adapter cable. CTCSS and DTCS tone codes provide quiet stand-by and allow you to use tone-access repeaters.

This potent dual-bander has selectable wide/narrow channel spacing, along with a WX channel/WX alert function. A handy power-save/auto power-off feature conserves battery life. It has repeater and busy channel lockout. The IC-T70A-HD comes with a BP-265 Li-Ion battery pack and charger, offering over 19 hours of power on a single charge.

| | |
|---|---|
| ICO-IC-T70A-HD | Dual-Band FM Transceiver; **CALL/WEB** |
| ICO-HM-131 | Speaker Mic ..... **$42.95** |
| ICO-LC-174 | Carrying Case ... **$37.95** |

ICOM

ICO-IC-V80

### IC-V80 VHF FM Transceivers

Icom's most economical full-featured 2 meter handheld gives you 5.5 watts of RF power. The external DC power jack allows for operation and charge when used with an external DC power supply. With its 207 alphanumeric memory channels, you can pick and choose your scanning. CTCSS and DTCS tone codes provide quiet stand-by and allow you to use tone-access repeaters.

The IC-V80 handheld has passed the MIL-STD-810 environmental tests for practical outdoor use. The IC-V80-HD features a BP-265 Li-Ion battery pack and charger, offering over 19 hours of power on a single charge. The IC-TV80SPORT includes a 6 AA battery pack.

They both pack WX channel/WX alert and automatic repeater functions, along with repeater/busy channel lockouts. The radios also feature wide/narrow channel spacing. Programming is a breeze, when using the optional CS-V80 software.

| | |
|---|---|
| ICO-IC-V80-HD | VHF FM Transceiver ...**CALL/WEB** |
| ICO-IC-V80-SPORT | VHF FM Transceiver ...**CALL/WEB** |
| ICO-CS-V80 | Cloning Software, for IC-V80/Sport..... **$49.95** |
| ICO-HM-158LA | Speaker Mic..... **$46.95** |

ICOM

### ID-51A Plus 2 VHF/UHF Dual-Band Transceiver

Icom's just introduced the ID-51A in a splash of different colors, so you can easily spot your radio on a table crowded with other HTs.

Icom's ID-51A Plus 2 incorporates two key D-STAR functions, Terminal Mode and Access Point Mode. It also can deliver blazing-fast data transfer in digital voice mode. The HT also features an integrated GPS receiver with an automatic position reply function. For added versatility, you can use the radio's dualwatch feature to listen to FM, AM and shortwave broadcast stations, while simultaneously monitoring the Ham bands. A new DV and FM repeater search provides quick, comprehensive scans.

| | |
|---|---|
| ICO-ID51APLUS2BK | VHF/UHF Dual Band Transceiver, Black .....**CALL/WEB** |
| ICO-ID51APLUS2BU | VHF/UHF Dual Band Transceiver, Blue.....**CALL/WEB** |
| ICO-ID51APLUS2GR | VHF/UHF Dual Band Transceiver, Green .....**CALL/WEB** |
| ICO-ID51APLUS2GY | VHF/UHF Dual Band Transceiver, Gray.....**CALL/WEB** |
| ICO-ID51APLUS2RD | VHF/UHF Dual Band Transceiver, Red.....**CALL/WEB** |
| ICO-OPC-2006LS | Plug Adapter..... **$29.95** |
| ICO-LC-179 | Carrying Case ..... **$34.95** |
| ICO-SJ-1 | Silicone Case ..... **$34.95** |

ICOM

| Accessory | Part Number | Description | ICO-IC-T70A-HD | ICO-IC-V80-HD & ICO-IC-V80SPORT | ICO-ID-51A-PLUS2 |
|---|---|---|---|---|---|
| Antennas | ICO-AD-92SMA | Antenna Connector Adapter (SMA Male to BNC Female) | x | | x |
| | ICO-FAS-270C | VHF/UHF HT & Scanner Antenna, Flexible, SMA Male | x | | x |
| Chargers | ICO-BC-167SA | Wall Charger for BP271 110 Vac, US Plug | | | x |
| | ICO-BC-191-12 | Rapid Desktop Charger for BP264 NiMH | x | x | |
| | ICO-BC-193-12 | Rapid Desktop Charger for BP265 Li-Ion | x | x | |
| | ICO-BC-202-02 | Rapid Desktop Charger for BP271, BP272 | | | x |
| Battery Packs | ICO-BP-264 | NiMH 7.2V/1400mAh | x | x | |
| | ICO-BP-265 | Li-Ion 7.4V/1900mAh (min.), 2000mAh (typ.) | x | x | |
| | ICO-BP-271 | Li-Ion 7/4/1150mAh | | | x |
| | ICO-BP-272 | Li-Ion 7.4V/1880mAh | | | x |
| Battery Cases | ICO-BP-263 | Alkaline Battery Case, Holds 6 AA Batteries | x | x | |
| | ICO-BP-273 | Alkaline Battery Case, Holds 3 AA Batteries | | | x |
| Cables | ICO-CP-12L | Cigarette Lighter Cable with Noise Filter, to Charge Radio | x | | x |
| | ICO-CP-19R | Cigarette Lighter Cable, Charger Radio While in Use, Built-in DC-DC Converter | x | | x |
| | ICO-OPC-2144 | Slim L-Type Plug Adapter Cable for Speaker Mic and Headphone | | | x |
| | ICO-OPC-2218LU | Cloning/Data Cable, USB | | | x |
| | ICO-OPC-254L | DC Power Cable, for Using Transceiver with an External Power Supply | x | | |
| | ICO-OPC-474 | Radio to Radio Cloning Cable | x | x | |
| | ICO-OPC-478 | PC to Radio Programming Cable, RS232 to Stereo 3.5mm Male | x | x | |
| | ICO-OPC-478UC | PC to Radio Programming Cable, USB to Stereo 3.5mm Male | x | x | |
| | ICO-OPC-515L | DC Power Cable, for Use with BC191, BC192 or BC193 | x | x | |
| Level Converter | ICO-CT-17 | CI-V, RS232 and Remote Jack Cables, Kit | | | x |
| Speaker Mics | ICO-HM-153LS | Compact Speaker Mic with Slim L-type Connector | | | x |
| | ICO-HM-186LS | Compact Speaker Mic with Slim L-type Connector | | | x |
| | ICO-HM-75LS | Remote Control Speaker Mic with Slim L-type Connector | | | x |
| Belt Clips | ICO-MB-124 | Alligator Style Clip | x | x | |
| | ICO-MB-127 | Belt Clip | | | x |

# BridgeCom SYSTEMS

### Welcome BridgeCom Systems!

DX Engineering is now happy to bring you radios and accessories from BridgeCom Systems. BridgeCom makes reliable, feature-rich transceivers that are easy to use and easy on your budget. Located near Kansas City, Missouri, BridgeCom radios are quickly becoming the go-to choice for Hams of every level. Over the next few months, we'll be adding more BridgeCom products to DXEngineering.com, so check back often to see the latest.

New!

BGM-D-500-VHF

BGM-D-500-UHF

### D-500 Handheld DMR Transceivers

Here's a smart, affordable way to get into Digital Mobile Radio (DMR). BridgeCom Systems offers two handhelds that are packed with performance. Available for both the 2M and 70cm bands, these HTs work in both analog NBFM (12.5 kHz) and DMR (TDMA) modes, plus they're WBFM capable. They operate in DMR Tier 1 and DMR Tier 2.

The D-500 radios pack a selectable 2 or 5 watts, and feature a Li-Ion battery for hours of talk time. BridgeCom includes a charger and FREE programming software with each radio too.

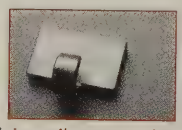
| | | |
|---|---|---|
| BGM-D-500-VHF | D-500 Handheld Transceiver, 2 Meter | $145.00 |
| BGM-D-500-UHF | D-500 Handheld Transceiver, 70cm | $145.00 |
| BGM-D-500-CABLE | Programming Cable | $15.00 |

## Lido Floor Mount

You simply attach the base of the flexible 22" gooseneck to your seat's mounting bolt to get a secure and versatile mount for your radio. From there, you can position the mount exactly where you want it. It uses the industry-standard AMPS mounting pattern to make installation a breeze.

| | | |
|---|---|---|
| LDO-LM-300 | Floor Mount | $29.95 |

## Lido Microphone Hooks



Here's an easy way to mount your mic within arm's reach. The hooks attach to your dash with an included 3M adhesive pad, which is easily removed without leaving a residue. The LM-1202 Mount is made specifically for Yaesu and Kenwood-style mics. If you've got an Icom, you'll want the LM-1201 Mount.

| | | |
|---|---|---|
| LDO-LM-1201 | Microphone Hook, for Icom | $4.95 |
| LDO-LM-1202 | Microphone Hook, for Yaesu and Kenwood | $6.95 |

# ALINCO

New!

### Digital/Analog Hand-held Transceivers

Need a heavy-duty digital mobile radio (DMR technology) with near-bulletproof reliability? Alinco's DX-AXD1 and DJ-AXD4 deliver—perfect for digital communications in harsh environments. They're analog and digital capable (DMR Tier 1 and Tier 2), with RF output selectable from 1 to 5 watts. A backlit LED screen is easy to read, even in dim light, and supports digital text messaging. These HTs deliver outstanding audio clarity and boast several security and alert features. A Li-Ion battery pack and desk charger are included.

| | | |
|---|---|---|
| ALO-DJ-AXD1T | VHF Digital/Analog HT, 2 Meter | $219.95 |
| ALO-DJ-AXD4T | UHF Digital/Analog HT, 70cm | $219.95 |
| ALO-EMS-80 | Speaker Mic | $39.65 |
| ALO-ERW-14 | PC Interface Cable | $39.65 |

# ALINCO

### DJ-MD40 70cm Digital Handheld Transceiver

An excellent digital UHF companion, the DJ-MD40 handheld gives you up to five watts of RF output. This DMR HT can operate in analog, digital and mixed modes. For operating ease, it has 1,000 memories, broken into 64 channel zones with quick contact access. Other handy features include a digital recorder, call logs, and password protection. It comes with a li-ion battery pack.

| | | |
|---|---|---|
| ALO-DJ-MD40T | 70cm Handheld Transceiver | $219.95 |
| ALO-EBC-45 | Belt Clip | $9.00 |
| ALO-EBP-96 | Battery Pack | $42.95 |
| ALO-EDC-211 | Charging Cradle | $19.95 |
| ALO-EDC-213 | AC Adapters | $19.95 |
| ALO-ERW-13 | USB Programming Cable | $26.95 |

# RAM® MOUNTS

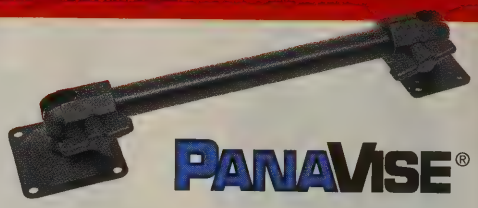
RMI-4949

### X-Grip Holders

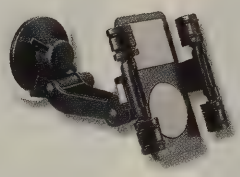
Since they can fit a variety of accessories, Ram's X-Grip Holders can be a versatile addition to your vehicle or shack. They're interchangeable with a wide range of Ram's mounts, like its handlebar, floor, clamp and strap versions. That means you can use them for your radio receiver head, your smartphone, GPS or Mp3 player. There are several sizes and configurations available, visit DXEngineering.com to see them all.

| | | |
|---|---|---|
| RMI-3749 | Suction Arm, Fits Common Smartphones | $39.99 |
| RMI-3607 | Surface Mount, Fits Common Smartphones | $38.99 |
| RMI-4949 | Suction Mount, Fits iPhone | $49.49 |

# PANAVISE®



PVP-727-12



PVP-706-811

PVP-727-06

### Mobile Electronics Mounts

Using what it learned developing rock-solid shop equipment, PanaVise developed a line of rugged mounts for your mobile electronics. These mounts are perfectly at home in a mobile Ham station, and they also work great in a variety of other environments like telecom hubs, broadcast stations, and laboratories.

PanaVise makes several types, including window mounts, pedestal mounts, and flex mounts. Visit DXEngineering.com and type keywords "PanaVise Mounts" into the search box to see them all.

# Internet Labs DV Dongle

### PC Access Dongle

Get digital network accessibility anywhere using the Internet. The innovative PC Dongle essentially turns your computer into a digital receiver. That means you'll be able to enjoy worldwide VHF/UHF communications, even if there are no digital repeaters nearby. Setup is easy, and the dongle plugs right in to your computer's USB port. It is PC/Mac compatible, high-speed Internet access required.

| | | |
|---|---|---|
| INL-DV-DONGLE | PC Access Dongle | $199.95 |

### Digital Voice Access Point Dongles

Create your own digital network hotspot, even if there aren't any repeaters around. Plug the Digital Voice Access Point Dongle into your computer to transform it into a digital network gateway. Then use your own digital radio to begin connecting with gateways and reflectors across the planet. The dongle includes an antenna good for whole-house coverage. You can upgrade the antenna for increased range. The free, specialized DVAPTool is PC, Mac and Linux compatible.

| | | |
|---|---|---|
| INL-DV-AP-2M | Digital Voice Access Point Dongle, 2 Meter | $249.95 |
| INL-DV-AP-70CM | Digital Voice Access Point Dongle, 70cm | $269.95 |

### Digital Voice Dongle

If you travel, but can't take your radio with you, stay in touch with this handy tool. Plug it into your PC or Mac's USB port and, with the free downloadable DVTool software, use your computer to connect to the popular international digital Amateur Radio gateway network. The DV3K lets you TX/RX in digital voice mode as you would with a digital radio. You'll just need an ordinary computer microphone and speaker to get on the air. It's small, easy to install, and works with Windows, Linux, or Mac OS X.

| | | |
|---|---|---|
| INL-DV3K | Digital Voice Dongle | $149.95 |

# RigExpert®

## *Wireless Transceiver Interface*

Take the feature laden RigExpert TI-7, and then add wireless Internet control capabilities and you get the WTI-1. By using a Wi-Fi connection, you'll be able to operate your radio from another country, or share your rig with your friends. That means your laptop essentially becomes your station! It's also a great option if you want control capabilities for a remote station. The interface gives you all of the digital modes you'd expect, plus remote VoIP operation.

The WTI-1 connects the same way the TI-7 does, so you'll need a special radio interface cable found in the table below. In addition to Wi-Fi, you can use a traditional wired Internet connection as well.

REU-WTI-1 Wireless Transceiver Interface..... **$404.95**

### Radio Interface Cables

These cables are required to connect RigExpert's Standard, Plus, TI-5, TI-7 and WTI-1 digital interfaces to your radio. A list of some of the more common radio applications are below, but there are many more. To find yours, call us or visit DXEngineering.com.

| Part Number | Radio Brand | Common Radio Applications | Price |
|---|---|---|---|
| REU-EL-001S | Elecraft | K3 | **$49.95** |
| REU-EL-002 | Elecraft | KX3 | **$49.95** |
| REU-IC-001 | Icom | IC-735, IC-756, IC-765, IC-7600, IC-7800 | **$49.95** |
| REU-IC-002 | Icom | IC-706, IC-703, IC-7000, IC-718, IC-9100 | **$49.95** |
| REU-IC-003 | Icom | IC-746, IC-7400 | **$49.95** |
| REU-TS-001S | Kenwood | TS-2000, TS-570D/S/SG, TS-590S/SG | **$49.95** |
| REU-TS-002 | Kenwood | TS-850S, TS-950S | **$49.95** |
| REU-TS-003 | Kenwood | TS-480HX/480SAT | **$49.95** |
| REU-TS-004 | Kenwood | TS-140S, TS-450S, TS-690S | **$49.95** |
| REU-TS-005 | Kenwood | TS-870S | **$49.95** |
| REU-TS-006S | Kenwood | TS-990S | **$49.95** |
| REU-TT-001S | TEN-TEC | Argo, Orion | **$49.95** |
| REU-YS-001 | Yaesu | FT-100/D, FT-817/ND, FT-857/D, FT-897/D | **$49.95** |
| REU-YS-002S | Yaesu | FT-1000MP/MKV | **$49.95** |
| REU-YS-003S | Yaesu | FT-1000/1000D | **$49.95** |
| REU-YS-004 | Yaesu | FT-920 | **$49.95** |
| REU-YS-005 | Yaesu | FT-450/450D | **$49.95** |
| REU-YS-006 | Yaesu | FT-950, FTDX-1200, FTDX-3000 | **$49.95** |
| REU-YS-007S | Yaesu | FT-1000MP/MKV, FT-2000/D, FT-DX5000 | **$49.95** |
| REU-YS-009S | Yaesu | FTDX-9000/9000D/9000MP | **$49.95** |

## *Radio Interface Cables*

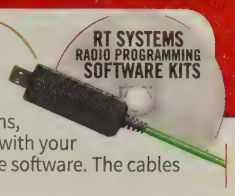
RT Systems has cables for many of the most popular radios in use today. They are compatible with various handhelds, mobiles, HF rigs and receivers from common manufacturers.

| Part Number | Radio | Cable | Price |
|---|---|---|---|
| RTP-USB-29A | Alinco, Icom, Yaesu | USB to Stereo 3.5mm Male Plug | **$29.95** |
| RTP-USB-57B | Alinco, Yaesu | USB to 4-Conductor TRRS 3.5mm Plug | **$29.95** |
| RTP-USB-RTS05 | Icom | USB to Stereo 2.5mm Male Plug | **$29.95** |
| RTP-USB-RTS01 | Icom | USB to Stereo 3.5mm Male Plug | **$29.95** |
| RTP-USB-92 | Icom | USB to 12-pin Plug, for IC-92AD | **$49.95** |
| RTP-RT-41 | Icom, Kenwood | USB to USB Mini | **$8.95** |
| RTP-USB-K4Y | Kenwood | USB to 3.5/2.5mm Plug | **$29.95** |
| RTP-USB-K5G | Kenwood | USB to 8-pin Mini DIN | **$29.95** |
| RTP-USB-K5D | Kenwood | USB to 8-pin Modular Plug | **$29.95** |
| RTP-USB-69 | Kenwood | USB to 6-pin DIN | **$29.95** |
| RTP-USB-63 | Kenwood, Yaesu | USB to Female DB-9 | **$29.95** |
| RTP-RT-42 | Yaesu, Icom | USB A to USB B | **$11.95** |
| RTP-RT-40 | Yaesu | 8-pin Mini DIN | **$8.95** |
| RTP-OPEN-VX8 | Yaesu | VX8 Mic/Data Cable to Open Wire Pigtail | **$7.95** |
| RTP-USB-29B | Yaesu | USB to 6-pin Mini DIN | **$29.95** |
| RTP-USB-60 | Yaesu | USB to 6-pin DIN | **$29.95** |
| RTP-USB61 | Yaesu | USB to 6-pin Mini DIN, Data Cable | **$29.95** |
| RTP-USB-62 | Yaesu | USB to 8-pin Mini DIN | **$29.95** |
| RTP-USB-68 | Yaesu | USB to Mini-B | **$29.95** |
| RTP-USB-RTS03 | Generic | USB to RS232 Adapter with Drivers | **$22.95** |

**Don't see the cable you need? Check out DXEngineering.com, there's a good chance we have it!**

## *Programming/Cloning Software and Cables*

rt SYSTEMS
RADIO PROGRAMMING MADE EASY




RT Systems makes programming your radio much less tedious. Instead of pressing buttons and reading small LCD screens, you can simply scroll through checkboxes and enter information with your keyboard. When noted, the proper interface cable comes with the software. The cables are also available separately. Find more at DXEngineering.com.

| Part Number | Radio | Cable | Price |
|---|---|---|---|
| RTP-APK-G7-USB | Alinco DJ-G7 | USB-57B | **$48.95** |
| RTP-APK-V27-USB | Alinco DJ-V27 | USB-57B | **$48.95** |
| RTP-APK-500-USB | Alinco DJ-500 | USB-29A | **$48.95** |
| RTP-APK-135-USB | Alinco DR-135 | USB-29A | **$48.95** |
| RTP-APK-235-USB | Alinco DR-235 | USB-29A | **$48.95** |
| RTP-APK-435-USB | Alinco DR-435 | USB-29A | **$48.95** |
| RTP-APK-635-USB | Alinco DR-635 | USB-29A | **$48.95** |
| RTP-APK-DR03-USB | Alinco DR-03 | USB-29A | **$48.95** |
| RTP-APK-DR06-USB | Alinco DR-06 | USB-29A | **$48.95** |
| RTP-APK-B185-USB | Alinco DR-B185 | USB-29A | **$48.95** |
| RTP-WCS-2300-USB | Icom IC-2300 | USB-29A | **$48.95** |
| RTP-WCS-2730-USB | Icom IC-2730A | USB-29A | **$48.95** |
| RTP-WCS-7000-USB | Icom IC-7000 | USB-RTS01 | **$48.95** |
| RTP-WCS-7100-USB | Icom IC-7100 | USB-RTS01 | **$48.95** |
| RTP-WCS-7200-USB | Icom IC-7200 | — | **$48.95** |
| RTP-WCS-7300-U | Icom IC-7300 | — | **$24.95** |
| RTP-WCS-7300-USB | Icom IC-7300 | USB-RT42 | **$34.95** |
| RTP-WCS-7410-USB | Icom IC-7410 | USB-RTS01 | **$48.95** |
| RTP-WCS-80-DATA | Icom IC-80 | USB-RTS05 | **$48.95** |
| RTP-WCS-9100-USB | Icom IC-9100 | USB-RTS01 | **$48.95** |
| RTP-WCS-T70-USB | Icom IC-T70 | USB-29A | **$48.95** |
| RTP-WCS-V80-USB | Icom IC-V80 | USB-29A | **$48.95** |
| RTP-WCS-D31-USB | Icom ID-31 | USB-RTS05 | **$48.95** |
| RTP-WCSD4100-USB | Icom ID-4100 | USB-29A | **$48.95** |
| RTP-WCS-D51-USB | Icom ID-51A | USB-RTS05 | **$48.95** |
| RTP-WCS-D5100USB | Icom ID-5100 | USB-29A | **$48.95** |
| RTP-WCSD5100DATA | Icom ID-5100A | USB-RTS05 | **$48.95** |
| RTP-WCS-D880DATA | Icom ID-880 | USB-RTS05 | **$48.95** |
| RTP-KRS-D72-U | Kenwood TH-D72 | — | **$24.95** |
| RTP-KRS-F6-USB | Kenwood TH-F6/F7 | USB-K4Y | **$48.95** |
| RTP-KRS271281USB | Kenwood TM-271/281 | USB-K5D | **$48.95** |
| RTP-KRS-D74-U | Kenwood TH-D74A | — | **$24.95** |
| RTP-KRS-D74-USB | Kenwood TH-D74A | USB-A/B | **$49.95** |
| RTP-KRS-V71-USB | Kenwood TM-V71A/E | USB-K5G | **$48.95** |
| RTP-KRS-480-USB | Kenwood TS-480 | USB-63 | **$48.95** |
| RTP-KRS-590-USB | Kenwood TS-590 | USB-63 | **$48.95** |
| RTP-ADMS-1900USB | Yaesu FT-1900 | USB-29F | **$48.95** |
| RTP-ADMS-25-USB | Yaesu FT-25 | USB-55 | **$48.95** |
| RTP-ADMS-270-USB | Yaesu FT-270 | USB-57B | **$48.95** |
| RTP-ADMS-2900USB | Yaesu FT-2900 | USB-29F | **$48.95** |
| RTP-ADMS-450-USB | Yaesu FT-450 | USB-63 | **$48.95** |
| RTP-ADMS-1J-USB | Yaesu FT-60 | USB-57A | **$48.95** |
| RTP-ADMS-65-USB | Yaesu FT-65 | USB-55 | **$48.95** |
| RTP-ADMS-70D-USB | Yaesu FT-70DR | USB-RTS05 | **$48.95** |
| RTP-ADMS-7900USB | Yaesu FT-7900 | USB-29B | **$48.95** |
| RTP-ADMS-4A-USB | Yaesu FT-817 | USB-62 | **$48.95** |
| RTP-ADMS-4B-USB | Yaesu FT-857/897 | USB-62 | **$48.95** |
| RTP-ADMS-891-USB | Yaesu FT-891 | USB-A to USB-B | **$34.95** |
| RTP-ADMS-2I-USB | Yaesu FT-8800 | USB-29B | **$48.95** |
| RTP-ADMS-2H-USB | Yaesu FT-8900 | USB-29B | **$48.95** |
| RTP-ADMS-991A-U | Yaesu FT-991/A | — | **$24.95** |
| RTP-ADMS-991AUSB | Yaesu FT-991/A | USB-A/B | **$49.95** |
| RTP-ADMS-FT1DUSB | Yaesu FT-1D | USB-68 | **$48.95** |
| RTP-ADMS-FT1DRSD | Yaesu FT-1D | SD Card Reader | **$34.95** |
| RTP-ADMS-FT2DRSD | Yaesu FT-2D | SD Card Reader | **$34.95** |
| RTP-ADMS-FT2DUSB | Yaesu FT-2D | USB-68 | **$48.95** |
| RTP-ADMSDX1200US | Yaesu FTDX-1200 | USB-63 | **$48.95** |
| RTP-ADMSDX3000US | Yaesu FTDX-3000 | USB-63 | **$48.95** |
| RTP-ADMSM3100USB | Yaesu FTM-3100 | USB-29F | **$48.95** |
| RTP-ADMSM3200USB | Yaesu FTM-3200 | USB-29F | **$48.95** |
| RTP-ADMS-M100RSD | Yaesu FTM-100 | SD Card Reader | **$34.95** |
| RTP-ADMS-M400RSD | Yaesu FTM-400 | SD Card Reader | **$34.95** |
| RTP-ADMS-VX3-USB | Yaesu VX-3 | USB-57A | **$48.95** |
| RTP-ADMS-VX6-USB | Yaesu VX-6 | USB-57B | **$48.95** |
| RTP-ADMS-VX8-USB | Yaesu VX-8/D/DR | USB-59 | **$64.95** |

## SignaLink™ PC/Radio Sound Card Interface

The all-new SignaLink USB combines the legendary performance of the original SignaLink SL-1+ with a state-of-the-art, built-in low-noise sound card. All sound card digital and voice modes are supported by the SignaLink USB. This includes traditional modes such as RTTY, SSTV and CW, as well as today's hottest new modes like PSK-31, MT-63 and EchoLink®. The front panel controls let you adjust your Transmit Audio, Receive Audio and Transmit Delay on the fly.

Tigertronics™ Grants Pass, Oregon

The SignaLink USB needs just one USB connection to the computer and one connection to the radio (in most cases). Convenient front panel controls make setup and operation very easy. The SignaLink USB is fully isolated and is compatible with all radio Mic, Data and Accessory ports. The SignaLink USB allows you to use your computer's sound card for other functions while enjoying digital communications.

Just order the correct, fully-assembled interface cable for your radio(s) and simply "plug and play." Cables are available for a mic connector interface or rear DIN plugs on radios so equipped. It makes for a neat, clean installation.

- Easy to set up
- Just plug in two cables
- Software included
- Built-in sound card
- Works with all radios
- Powered through USB cable
- Easy hookup to Macintosh or PC
- Comprehensive, easy-to-follow instructions

**SignaLink USB Digital Communications Interface Combos**

To make installation easier, DX Engineering created combos that pair a Tigertronics SignaLink with a radio-specific interface cable. The manufacturers are listed below; visit DXEngineering.com to find your specific radio model.

| Part Number | Radio | Price |
|---|---|---|
| TGR-SLUSB13I-P | Icom 13-pin DIN and SL-USB | $129.95 |
| TGR-SLUSB13K-P | Kenwood 13-pin DIN and SL-USB | $129.95 |
| TGR-SLUSB4R-P | Drake 4-pin Mic and SL-USB | $129.95 |
| TGR-SLUSB5PD-P | Yaesu, TEN-TEC 5-pin DIN | $129.95 |
| TGR-SLUSB6PM-P | Icom, Kenwood, Yaesu 6-pin Mini-DIN and SL-USB | $129.95 |
| TGR-SLUSB8PD-P | Icom, TEN-TEC 8-pin DIN and SL-USB | $129.95 |
| TGR-SLUSB8R-P | Icom, Alinco, Elecraft , Kenwood, Yaesu 8-pin MIC and SL-USB | $129.95 |
| TGR-SLUSBHTW-P | Kenwood, Baofeng, Wouxun HT Plug and SL-USB | $129.95 |
| TGR-SLUSBHTY-P | Yaesu HT Plug and SL-USB | $129.95 |
| TGR-SLUSBK3-P | Elecraft K3 and SL-USB | $129.95 |
| TGR-SLUSBKX3-P | Elecraft KX3 Plug and SL-USB | $129.95 |
| TGR-SLUSBNC-P | No Connector DIN and SL-USB | $116.95 |
| TGR-SLUSBRJ1-P | Yaesu RJ11 6-pin Modular and SL-USB | $129.95 |
| TGR-SLUSBRJ4-P | Icom, Kenwood, Alinco, Yaesu RJ45 and SL-USB | $129.95 |
| TGR-SLUSB847-P | Yaesu 3.5mm Data I/O Jack and SL-USB, FT-847 | $129.95 |
| TGR-SLUSBVXY-P | Yaesu HT TRRS Mic/Speaker Plug and SL-USB | $129.95 |
| **Preprogrammed "Plug and Play" Radio Jumper Modules** | | |
| TGR-SL-MOD8RI | Jumper Module, Icom 8-pin Mic Interface | $9.95 |
| TGR-SL-MOD13I | Jumper Module, Icom 13-pin Accessory Port | $9.95 |
| TGR-SL-MOD8RK | Jumper Module, Kenwood 8-pin Mic Interface | $9.95 |
| TGR-SL-MOD13K | Jumper Module, Kenwood 13-pin Accessory Port | $9.95 |
| TGR-SL-MOD8RY | Jumper Module, Yaesu 8-pin Mic Interface | $9.95 |
| TGR-SL-MOD5PD | Jumper Module, TEN-TEC/Yaesu 5-pin DIN Interface | $9.95 |
| TGR-SLMODHT | Jumper Module, Yaesu HT, use w/SLCABHTY Cable | $9.95 |
| TGR-SL-MOD6PM | Jumper Module, 6-pin Mini-DIN | $9.95 |
| TGR-SL-MOD8PD | Jumper Module, 8-pin DIN | $9.95 |
| TGR-SL-MODK3 | Jumper Module, Elecraft K3 | $9.95 |
| TGR-SL-MODKX3 | Jumper Module, Elecraft KX3 | $9.95 |

**SignaLink Radio Interface Cables**-You need the right cable for your SignaLink. If you change radios, add these to your existing SL-USB. These cables use either your radio's mic connector or rear DIN port. Some radios do not have the "RX Audio" signal on the mic connector and will require a mono cable between the SignaLink USB and the radio. You can avoid this issue by attaching the SignaLink to your radio's Data or Accessory port.

| Part Number | Description | Price |
|---|---|---|
| TGR-SL-CAB4R | 4-pin Round Mic Connector Interface Cable | $22.95 |
| TGR-SL-CAB8R | 8-pin Round Mic Connector Interface Cable | $22.95 |
| TGR-SL-CABRJ1 | RJ11 Mic Connector Interface Cable | $22.95 |
| TGR-SL-CABRJ4 | RJ45 Mic Connector Interface Cable | $22.95 |
| TGR-SL-CAB5PD | 5-pin TEN-TEC/Yaesu DIN Interface Cable | $22.95 |
| TGR-SLCABHTY | Yaesu HT Interface Cable | $22.95 |
| TGR-SL-CABVXY | Yaesu TRSS Mic/Speaker Plug | $22.95 |
| TGR-SL-CAB847 | Yaesu 3.5mm I/O Jack | $22.95 |
| TGR-SLCABHTW | Kenwood, Baofeng and Wouxun HT Interface Cable | $22.95 |
| TGR-SL-CAB8PD | 8-pin DIN Interface Cable | $22.95 |
| TGR-SL-CAB13I | 13-pin DIN Icom Interface Cable | $22.95 |
| TGR-SL-CAB13K | 13-pin DIN Kenwood Interface Cable | $22.95 |
| TGR-SL-CAB6PM | 6-pin Mini-DIN Interface Cable | $22.95 |
| TGR-SL-CABNC | Unterminated Cable Interface Cable | $9.95 |
| TGR-SL-CABK3 | Special Elecraft K3 Interface Cable | $22.95 |
| TGR-SL-CABKX3 | Special Elecraft KX3 Interface Cable | $22.95 |
| TGR-SLHEAD | Header Plug for Radio Programming | $12.95 |

# RigExpert®

## Digital Mode and Radio Control Interface

This clever tool links your radio and computer, giving you rig control, plus keying and audio interface capabilities. It's a must-have for digital operation, and is compatible with all digital modes, including CW, RTTY and digital voice. The audio interface lets you record and playback voice, measure signal levels and more. The computer interface can control frequency, mode, and other critical radio functions.

The new TI-8 improves upon the earlier TI-7 by adding a CW output jack for true CW keying with logging and contest programs that support WinKey mode—find all the details at DXEngineering.com.

The interface connects to your computer's USB port and requires a radio-specific interface cable (sold separately in the table on the previous page).

REU-TI-8 Digital Mode and Radio Control Interface Plus WinKey Mode ..... **$249.95**

WMT-58012-1288

## Digital Modes + Rig Control Interface!

West Mountain Radio

**RIGblaster Advantage**

Connect the RIGblaster Advantage to your radio's microphone connector, and a computer USB connector and you'll have access to over 100 existing and future Ham radio sound card software programs! You'll also get over 20 exciting modes that your radio could not otherwise operate. The Advantage also links your computer software and radio using CAT, CI-V or DB9 interface cables.

WMT-58012-1288 RIGblaster Advantage ..... **$189.95**

**RIGblaster Cables and Accessories**

To maximize the potential of your RIGblaster, adapters, kits and accessories are available.

| Part Number | Description | Price |
|---|---|---|
| WMT-58107-971 | RIG Control Cable for CI-V (Icom and TEN-TEC) Radios | $9.95 |
| WMT-58108-972 | CAT Cable for Yaesu FT-100/100D/817/857/897 | $9.95 |
| WMT-58108-974 | CAT Cable for Yaesu FT-736/747/767/990/1000 | $9.95 |
| WMT-58214-1295 | RIGblaster DB9F to DB9F Serial Cable | $9.95 |
| WMT-58111-975 | Instant Setup Quick Connector Kit for Icom, Yaesu, Kenwood | $19.95 |
| WMT-58126-990 | USB to RS232 Radio Interface Cable | $24.95 |
| WMT-58136-1000 | 4-/8-pin to RJ45 Conversion Kit | $19.95 |
| WMT-58137-1001 | AC Power Supply for RIGblaster M8, Plus, Pro | $14.95 |
| WMT-58140-1010 | Replacement Sound Card Software CD-ROM | $9.95 |

West Mountain Radio

## RIGblaster Blue Wireless Interface

West Mountain has added Bluetooth® connectivity to its legendary RIGblaster interface. This new system means you can control your RIGblaster via smartphone, operate hands-free with a Bluetooth headset mic, or adjust parameters using a tablet PC.

The unit itself has all the features of West Mountain's current RIGblaster, so you'll be able to enjoy PSK31, RTTY, HF packet and a wide range of other digital modes. Find all the details at DXEngineering.com.

WMT-58013-1502 RIGblaster Blue Wireless Interface ..... **$199.95**

## RIGblaster Digital Mode Interface Cables

These cables connect your RIGblaster to your radio. There are cables available for many specific models and digital modes. There are even cables that can actually key your CW jack on your radio for true FSK/RTTY transceiver inputs.

RIGblaster Digital Mode Interface Cables..... Starting at **$9.95**

## USB to RS232 Radio Interface Cable

Give RS232 connectivity to your computer. Go from USB to RS232 male OR female with the included adapter. A link to all the drivers you'll need is at DXEngineering.com.

WMT-58206-1009 USB to RS232 Radio Interface Cable..... **$34.95**

bhi Noise Cancellation Products

### Compact In-Line DSP Noise Eliminating Module

Take high-performance noise cancelling into the field with his battery-powered option. It delivers bhi's latest noise suppression technology, and is small and rugged enough to be tucked into a duffle bag. The module is designed to work with headphones, but may also work with a compact, portable external speaker. A front-panel knob allows to you fine-tune your noise cancelling level.

BHD-COMPACTINLNE Compact In-Line DSP Noise Eliminating Module..... **$245.95**

bhi Noise Cancellation Products

BHD-1031-108D

BHD-1031-STAND

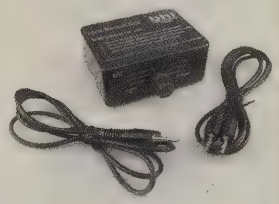
### NEIM1031 MKI. DSP Noise Eliminating In-Line Module

If you've already got a good extension speaker, bhi makes a standalone DSP module that installs between your radio and your speaker. The NEIM1031 MKII is capable of filtering out a significant amount of noise and RFI, which means you'll be able to copy distant and weak signals. Rotary panel knobs are intuitive and allow for precise adjustability. It requires 13.8 Vdc, handles up to 5 watts RMS and accepts either speaker- or line-level inputs. Though it typically sits upright, it can easily lay flat—order the Conversion Label to make sure you can still read the faceplate.

BHD-NEIM1031MKII

| | | |
|---|---|---|
| BHD-NEIM1031MKII | MKII Noise Eliminating In-Line Module | **$199.95** |
| BHD-1031-STAND | Desktop Stand for NEIM1031 MKII | **$15.95** |
| BHD-1031-108D | Horizontal Conversion Label | **$9.25** |

bhi Noise Cancellation Products



### Six Way and Mini Switch Boxes

Running multiple radios in your shack? bhi built a six-way switch to allow you to connect up to six radios to one of its noise cancelling modules or external speakers. It has three loaded (8 Ω) and three unloaded (low level) inputs. There's also a Mini Switch that uses a simple toggle switch to select one or two radios to a bhi module.

| | | |
|---|---|---|
| BHD-1042SWITCHBX | Six Way Switch Box | **$39.95** |
| BHD-MINI-SWITCH | Two Way Mini Switch Box | **$29.95** |

bhi Noise Cancellation Products

### ANEM MKII Noise Away Module

Want to squash noise and RFI in your audio path, but don't enjoy fiddling with knobs? bhi has this "set-and-forget" solution. Simply install it between your radio and external speaker or headphones and it goes to work with its own adaptive noise cancelling DSP to provide you with crystal clear speech response. bhi makes the Noise Away module almost specifically for SSB radio communications, and it works extremely well on the HF and VHF bands.

BHD-ANEM-MKII Noise Away Module ..... **$185.95**

bhi Noise Cancellation Products

### Radio Mate

Yaesu's FT-817, FT-857 and FT-897 are incredible radios—but controlling them can be cumbersome. bhi's Radio Mate is a compact keypad interface that enables many of the common functions of these radios, like band changing, memory access and direct frequency input. It makes using these radios a breeze, greatly increasing your speed and capabilities. See everything you can do with the Radio Mate at DXEngineering.com.

BHD-RADIO-MATE Radio Mate Yaesu Keypad Interface..... **$155.95**

New!

BHD-EQ20

bhi Noise Cancellation Products

BHD-EQ20B

### ParaPro EQ20

Any audio engineer will tell you how valuable a parametric EQ can be. It allows you to boost/cut specific frequencies so you can fine-tune your audio on the fly for better voice copy. bhi's new ParaPro units combine a robust parametric EQ with a 20 watt audio amplifier. The controls are intuitive, allowing you to easily and quickly adjust the ParaPro's frequencies—a great Contesting companion.

bhi offers a ParaPro with a built-in adjustable noise canceling DSP unit, which will automatically filter out background noise and enhance the human voice. You can also get the ParaPro with Bluetooth® capability that lets you turn your wired speakers into wireless speakers. It's a smart way to clean up your shack's wiring and open up some unique installation possibilities.

| | | |
|---|---|---|
| BHD-EQ20 | ParaPro EQ20 | **$199.95** |
| BHD-EQ20B | ParaPro EQ20 with Bluetooth | **$249.95** |
| BHD-EQ20-DSP | ParaPro EQ20 with DSP Unit | **$319.95** |
| BHD-EQ20B-DSP | ParaPro EQ20 with Bluetooth and DSP Unit | **$359.95** |

bhi Noise Cancellation Products

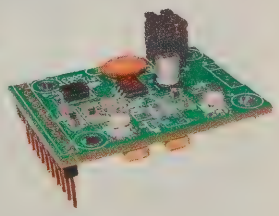
### Dual In-Line DSP Noise Eliminating Module

Many new radios (including most SDRs) have stereo audio capability. bhi's Dual In-Line accepts two separate audio signals to allow for stereo output. It can also be fed by two different signals, which is handy if you run multiple radios in your station. The dual outputs also mean you can monitor two separate signals at the same time. It also has separate seven watt audio and headphone outputs. It's an ideal DSP noise cancelling module for club events, Field Day or multi-radio DX stations.

BHD-DUAL-IN-LINE Dual In-Line DSP Noise Eliminating Module ..... **$319.95**

bhi Noise Cancellation Products

### Single and Dual Channel Audio Noise Suppression PCB Modules



Get up to 40 dB of noise suppression from a PCB the size of a cracker. These run noise-cancelling software tailored precisely to filtering out unwanted, ambient noise. The modules have their own onboard voltage regulation and clock oscillator, which is perfect for portable setups. The NEDS1061PCB features on-board level controls to tailor your audio output. The modules are available either as a standalone PCB or bundled in a kit with a wiring harness for retrofitting popular radio models and extension speakers. Find the full list of each kit's radio compatibility at DXEngineering.com.

| | | |
|---|---|---|
| BHD-NEDSP900 | Dual Channel DSP PCB Module | **$155.95** |
| BHD-NEDSP1061KBD | Pre-wired Low Level Audio PCB Kit for Yaesu FT817/Icom/Alinco/Kenwood | **$145.95** |
| BHD-NEDSP1061PCB | Low Level Audio Noise Suppression PCB Module with On-board Controls | **$145.95** |
| BHD-NEDSP1062KBD | Pre-wired Amplified PCB Kit for Boosting Extension Speakers Like Kenwood SP-31, Yaesu SP-8 | **$155.95** |

PHONEMA

New!

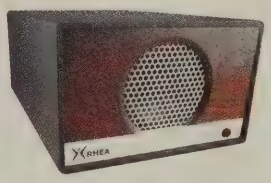
### Miranda Speaker

Revealed just prior to this catalog's printing, Phonema's all-new Miranda speaker is sized to perfectly complement the new compact radios from Icom, Kenwood, Ten Tec and Yaesu. The finely finished enclosure houses special acoustic damping material, a 10 watt amplifier, and 8 Ω driver. The Miranda boasts a 80-18000 Hz frequency response and 83 dB sensitivity. Expect to hear more (pun intended!) about Phonema's new Miranda speaker as details are announced at DXEngineering.com.

PNE-MIRANDA Miranda Speaker for Icom, Kenwood, Ten Tec and Yaesu; **$159.95**

PHONEMA

New!



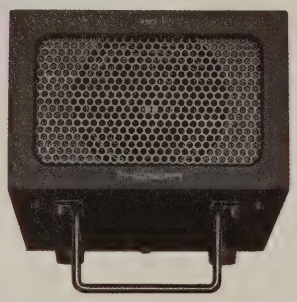
### Rhea Speaker

With a real sucupira wood finish reminiscent of a classic high-fidelity stereo console, Phonema's new Rhea speaker represents sound reproduction in its finest form. It incorporates a supplemental 10 watt amplifier and acoustic-grade foam to deliver a tone well suited to CW and AM. The Rhea's 8 ohm driver is tailored precisely to today's modern radios from Kenwood, Yaesu and Icom. See all of the compatible radios at DXEngineering.com.

PNE-RHEA Rhea Speaker for Kenwood, Yaesu and Icom ..... **$229.95**

**Coming Soon in Black!**

PHONEMA



### KSP3 Speaker

There's no denying the versatility of Elecraft K-series radios. But their built-in internal speaker system leaves a little bit to be desired. Phonema makes a high-fidelity standalone speaker tailored precisely to the Elecrafts' unique audio characteristics. The speaker is also an excellent aesthetic complement to the radios, offering a similar size and orientation.

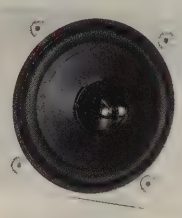
PNE-KSP3 KSP3 Speaker for Elecraft K3 ... **$165.95**

### Clear the Air.

When Marconi first began experimenting with a spark gap transmitter, he didn't have to worry about RFI. Nowadays though, everything from household appliances to overhead power lines can pollute the radio spectrum. If you're dealing with unwelcome noise (QRN) in your shack, there are solutions. Check out the chokes, ferrite beads, noise finders and audio enhancers found in this catalog.

PNE-GPH-Y2K

PHONEMA



PNE-GPH-K23

### Speaker and Acoustic Modification Kits

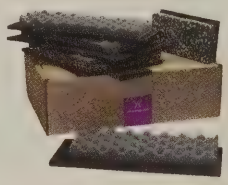
Phonema's standalone speakers offer exceptional fidelity and audio response, but what do you do if you've already got a favorite speaker on your desk? Phonema's speaker and acoustic modification kits are your answer.

**GAMMA PHITS Speaker Modification Kits**

These kits swap your existing driver for a superior-quality neodymium unit. The new driver boasts better frequency response and power handling capability. You'll find similar drivers in big-buck audiophile sound systems. These driver kits are also a smart replacement for an old or damaged driver.

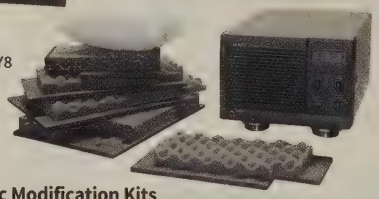
| | | |
|---|---|---|
| PNE-GPH-I23 | Speaker Driver Kit for Icom SP-23 | **$29.95** |
| PNE-GPH-K23 | Speaker Driver Kit for Kenwood SP-23*, SP-120, SP-430 | **$35.95** |
| PNE-GPH-K23X | Speaker Driver Kit for Kenwood SP-23 with Plastic Face | **$35.95** |
| PNE-GPH-X90 | Speaker Driver Kit for Kenwood SP-990, Yaesu SP-9000 | **$35.95** |
| PNE-GPH-Y2K | Speaker Driver Kit for Yaesu SP-2000 | **$42.95** |

***Earlier, aluminum face SP-23 model only.**



PNE-K31

PHONEMA



PNE-Y8

**PHITS Acoustic Modification Kits**

A speaker driver is only part of the equation. High quality acoustic reproduction requires a cabinet with the proper amount of baffling, porting and resonance. Phonema's Acoustic Modification Kits let you add specialized internal foam and filling to get the most out of your speaker's existing cabinet, without having to swap the driver.

| | | |
|---|---|---|
| PNE-I23 | Acoustic Modification Kit for Icom SP-23 | **$45.95** |
| PNE-I34 | Acoustic Modification Kit for Icom SP-20, SP-34 | **$55.95** |
| PNE-K23A | Acoustic Modification Kit for Kenwood SP-23, SP-120, SP-430 | **$35.95** |
| PNE-K31 | Acoustic Modification Kit for Kenwood SP-31 | **$45.95** |
| PNE-K99 | Acoustic Modification Kit for Kenwood SP-990 | **$59.95** |
| PNE-Y2KA | Acoustic Modification Kit for Kenwood SP-2000 | **$55.95** |
| PNE-TT07 | Acoustic Modification Kit for Ten Tec 307 | **$55.95** |
| PNE-Y8 | Acoustic Modification Kit for Yaesu SP-8 | **$55.95** |
| PNE-Y9K | Acoustic Modification Kit for Yaesu SP-9000 | **$85.95** |

DX ENGINEERING

### Communications Speaker

Plug in the speaker and bring out communication speech fidelity that you never knew existed. It restores the smooth sound of sine waves that CW naturally generates and makes it easy to copy. The ClearTone speaker improves speech intelligibility in the 600 to 4000 Hz frequency range while reducing undesirable noise static and hum. It has a 6' cord and 3.5mm mono plug. Output: 8 watts. Impedance: 8 Ω. Dimensions: 3.75" H x 3" W x 2.25" D.

DXE-281 ClearTone Speaker ..... **$14.95**

WEST MOUNTAIN RADIO

WMT-58407-949

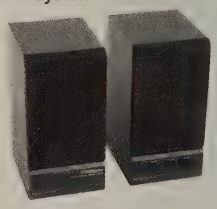
### Radio ClearSpeech Noise Reduction Speaker and Processor

The CLRspkr is a compact, portable loudspeaker containing an adaptive DSP noise reduction circuit with a 10 watt audio amplifier. The ClearSpeech® adaptive DSP algorithms analyze the noise content of the incoming signal, then attenuate or completely remove hum, hiss, ignition and power line noise, static and heterodynes. What you hear is clean voice and CW with over 85% of the noise removed. If you have an external speaker that you like, the ClearSpeech DSP processor unit will give you the clean sound you want. It installs between your radio and the speaker.

WMT-58407-948 DSP Speaker ..... **$199.95**

WMT-58407-949 DSP Processor ..... **$199.95**

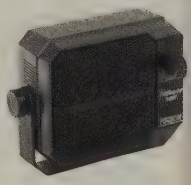
**COMspkr Computer Speaker System**



This amplified speaker system is optimized for close range operation with any radio transmitter. It features exceptionally high rejection of Radio Frequency Interference from 1 to 1000 MHz.

WMT-58409-950 COMspkr Computer Speaker System ..... **$39.95**

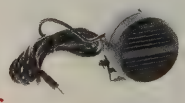
**PWRspkr Amplified Speaker**



Packing 15 watts of amplification, this speaker is great for noisy shacks, loud mobile installations or radios with weak audio output. The PWRspkr is tailored to the 300-3200 Hz range for the human voice sweet spot. It features a 4.25" speaker, requires 13.8 Vdc, and includes a 6' audio cable and mounting bracket.

WMT-58406-947 15 Watt Amplified Speaker ..... **$75.95**

YAESU



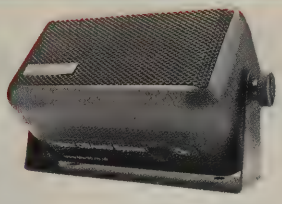
### Mobile External Speakers

Rugged and compact, these handy speakers let you put your audio where you want it. They're a great solution to less-than-ideal radio installations, because you don't have to rely on the radio's own, built-in speaker. Each speaker comes with an attached 6.5' cable that terminates in a standard 1/8" phono plug. Mounting brackets are included. Got a station on your boat? The MLS-200-M10 is waterproof. The speakers are compatible with any radio that has a 1/8" external speaker jack.

YSU-MLS-100 Mobile External Speaker, Rectangle ..... **$49.95**

YSU-MLS-200-M10 Mobile External Speaker, Round, for FTM-100/400DR ..... **$49.95**

bhi Noise Cancellation Products



### NES10-2 MK3 Compact DSP Speaker

Here's an amplified DSP Noise Eliminating Speaker that is small enough to go in even the most cramped mobile rigs. It has fully adaptive DSP noise cancelling with eight filter levels. An intuitive rotary filter knob allows you to adjust the filtering by ear in real-time. It has an on/off switch with audio bypass.

BHD-NES10-2MK3 NES10-2 MK3 Compact DSP Speaker ..... **$159.95**

bhi Noise Cancellation Products

### Extension Speakers

These speakers are useful as extension speakers for your bhi in-line modules, or for any radio in your shack or mobile rig. The SPKR8 features a built-in passive noise filter for improved voice clarity.

| Part Number | Power Handling | Impedance | Price |
|---|---|---|---|
| BHD-SPKR8 | 8 watts | 8 Ω | $29.95 |
| BHD-LSPKR | 20 watts | 4 Ω | $29.95 |

KENWOOD

### External Speakers

Don't overlook the importance of a good external speaker in your station. After all, it's the final link in your signal chain. Kenwood borrowed from its storied history of offering high-fidelity audio components to create external speakers specifically tailored to Amateur Radio—including mobile applications.

KWD-KES-3S Mobile, 4 Ω, 3' Cord with 1/8" Male Plug ..... **$39.95**

KWD-KES-5 Mobile, 4 Ω, 3' Cord with Stripped Leads ..... **$45.95**

KWD-SP-23 Base, 8 Ω, RF Shielded, Screw Terminals ..... **$84.95**

KWD-SP-990 Base, 8 Ω, RF Shielded, Pushbutton Filters ..... **$289.95**

### DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card.

Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

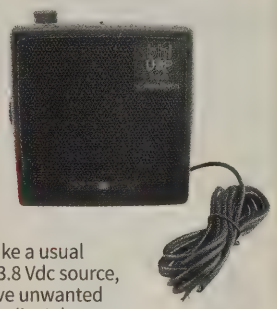
bhi Noise Cancellation Products

### DESKTOP DSP Noise Cancelling Speaker

Tailored towards a base station setup, the 10 Watt amplified DESKTOP speaker creates a sublime listening experience. It features bhi's legendary DSP noise cancelling technology along with a tweeter/bass driver combo that rivals home entertainment systems. It accepts either speaker- or line-level input, and has a separate headphone jack for using the speaker's DSP with your own headset.

BHD-DESKTOP DESKTOP DSP Noise Cancelling Speaker ..... **$235.95**

bhi Noise Cancellation Products



### DSPKR DSP Noise Cancelling Speaker

The DSPKR packs cutting-edge DSP technology into roughly the same size as a standard 4" extension speaker. Simply install it like a usual speaker, add a separate 13.8 Vdc source, and you're ready to remove unwanted noise and RFI from your audio. It boasts 10 watts of amplified power. A smart "sleep mode" automatically powers off the unit when it's not in use.

BHD-DSPKR DSPKR DSP Noise Cancelling Speaker ..... **$189.95**

YAESU

### Base Station External Speakers

Yaesu offers a pair of external speakers for your base station. They both offer adjustable audio filters, so you can really fine-tune to your audio tastes. Each one also has a dual set of inputs, so you can match one speaker to two radios. Though they're tailored to Yaesu radio models, they work equally well for any base station radio.

YSU-SP-2000 Base Station Speaker for FTDX-3000/5000 ..... **$219.95**

YSU-SP-9000 Base Station Speaker for FTDX-9000 ..... **$369.95**

YAESU

### SP-10 and SP-20 External Speakers

Capable of stunning audio reproduction well tailored to SSB and digital voice, these two all-new speakers from Yaesu are an excellent complement to your base station. Both speakers mate perfectly with a corresponding Yaesu transceiver.

YSU-SP-10 Speaker for Yaesu FT-991 ..... **$169.95**

YSU-SP-20 External Speaker for Yaesu FTDX1200, FTDX3000D ..... **$209.95**

### The Big Bang.

Our Amateur Radio universe is expanding faster than ever with, with advances in digital modes and IP-based communications. Bookmark DXEngineering.com and make sure you don't miss a thing.

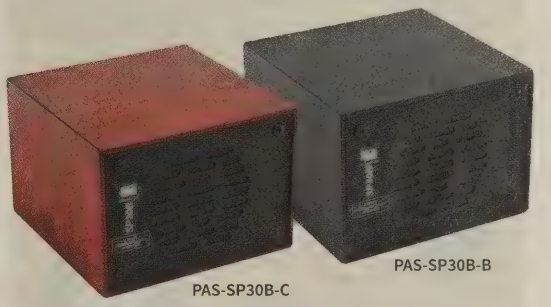
Palstar

### Ultimate Communications Speakers

Custom-engineered to reproduce the human voice, these speakers are well suited for the 55 kHz to 8 kHz range. They each feature a 6.5" speaker housed in a cabinet filled with acoustic dampening foam. They handle up to 20 watts of RMS power.

PAS-SP30HB Black Finish ..... **$195.95**

PAS-SP30HC Cherry Finish ..... **$195.95**




### Shortwave Radio Speakers

If you enjoy SWL, then these speakers can enhance that experience. They're tonally matched to Palstar's R30A, but are an excellent complement to any shortwave receiver. The speakers' compact design is perfect for your desk or nightstand.

PAS-SP30B-B SW Radio Speaker, Black Finish ... **$99.95**

PAS-SP30B-C SW Radio Speaker, Cherry Finish; **$99.95**

ICOM

### External Speakers

You've spent a lot of time and money perfecting your antenna and radio, now make sure that the last step—the audio delivery—has the same performance. Icom offers several speakers to help you better hear contacts and make more QSOs. Each speaker includes the appropriate hookup cable(s).

ICO-SP-38 External Speaker, Base Station Type, IC-7300 Companion ..... **$174.95**

ICO-SP-30 External Speaker, Powered, 20 W ..... **$99.95**

ICO-SP-23 External Speaker, Audio Filters, 5.750" Speaker ..... **$289.95**

ICO-SP-34 External Speaker, Audio Filters, 7.875" Speaker ..... **$329.95**

ICO-SP-35 External Mobile Speaker, Replaces SP-10 ..... **$59.95**

### Pro 7 Headsets

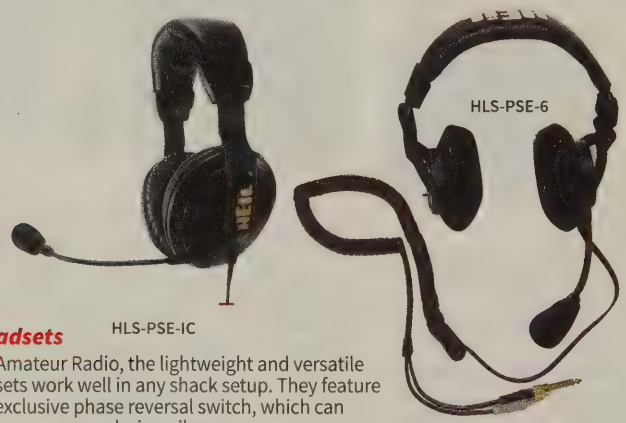
Using well-insulated ear pads and an innovative acoustic design, the Pro 7 Headsets' passive noise cancelling ability blocks out all the background noise, leaving just you and your radio. And since it's passive, you don't have to worry about eating batteries or any extra power draw. The Pro 7 series features a unique audio balance control, which allows one speaker's volume to be adjusted. The headsets' clever phase reversal switch lets you really dig out weak frequencies, and the mic boom can be used on either the right or left ear. Non-IC models require AD-1 series cable, see the table on page 34.

| | | |
|---|---|---|
| HLS-PRO7BK | Pro 7 Headset, Black, Dynamic | $277.00 |
| HLS-PRO7BK-IC | Pro 7 Headset, Black, with AD-1-IC Cable, Electret | $290.00 |
| HLS-PRO7BU | Pro 7 Headset, Blue, Dynamic | $277.00 |
| HLS-PRO7BU-IC | Pro 7 Headset, Blue, with AD-1-IC Cable, Electret | $290.00 |
| HLS-PRO7PK | Pro 7 Headset, Pink, Dynamic | $277.00 |
| HLS-PRO7PK-IC | Pro 7 Headset, Pink, with AD-1-IC Cable, Electret | $290.00 |
| HLS-PRO7RD | Pro 7 Headset, Red, Dynamic | $277.00 |
| HLS-PRO7RD-IC | Pro 7 Headset, Red, with AD-1-IC Cable, Electret | $290.00 |

### Pro Micro Headsets

You'll typically find these headsets in commercial broadcast environments, thanks to their specially tuned HC-6 mic element. The headsets' unique mic characteristics and durable construction also make them an excellent choice for Ham Radio. Pro Micro Headsets include a microphone windscreen, and come with single or dual earphones. Non-IC models require AD-1 series cable, see the table on page 34.

| | | |
|---|---|---|
| HLS-PMD-6 | Pro Micro Headset, Dual Side | $100.00 |
| HLS-PMS-6 | Pro Micro Headset, Single Side | $80.00 |
| HLS-PMD-IC | Pro Micro IC Headset, Dual Side, with AD-1-IC Cable | $110.00 |
| HLS-PMS-IC | Pro Micro IC Headset, Single Side, with AD-1-IC Cable | $92.00 |




### Pro Set Headsets

Designed for Amateur Radio, the lightweight and versatile Pro Set Headsets work well in any shack setup. They feature Heil Sound's exclusive phase reversal switch, which can significantly improve copy during pileups.

Pro Set Elite Headsets take comfort and performance up a notch, with larger, more heavily padded earpieces. Non-IC models require AD-1 series cable, see the table on page 34.

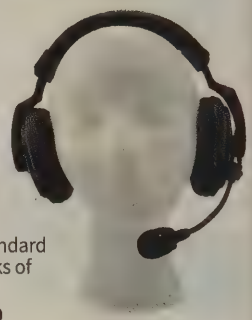
| | | |
|---|---|---|
| HLS-PS-6 | Pro Set Headset | $156.00 |
| HLS-PS-IC | Pro Set iC Headset with AD-1-IC Cable | $168.00 |
| HLS-PSE-6 | Pro Set Elite Headset | $184.00 |
| HLS-PSE-IC | Pro Set Elite iC Headset, with AD-1-IC Cable | $195.00 |

### Professional Headphones

Whether you're listening to a distant shortwave broadcast or an old jazz LP, these headphones deliver exceptional sound reproduction. They include three different detachable cables, allowing you to select the correct length and connector you'll need. The cables terminate in an iPod/iPad-compatible 1/8" plug with a gold plated, screw-on 1/4" adapter. The replaceable earpieces are heavily padded for comfort.

| | | |
|---|---|---|
| HLS-PROSET-3 | Professional Headphones | $111.00 |

### Pro Set Media Pro Headset



Made to work specifically with your computer, this award-winning headset delivers beautiful articulate audio. The earphones are acoustically tuned and use Heil Sound's exclusive phase-reversing feature to create a spatial widening effect that makes audio easier to hear. The mic element is also tailored to sound card input requirements.

Pro Set Media Pro Headsets are plug-and-play, with two standard 1/8" plugs that connect to the microphone and speaker jacks of your computer.

| | | |
|---|---|---|
| HLS-PSM | Pro Set Media Pro Headset | $123.00 |

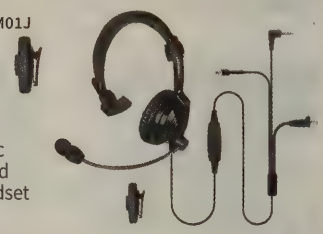
### Lightweight Dual-Side Boomsets

Weighing a mere 3 ounces, these headsets are perfect for contesting, Field Day and any portable operation. They have an extremely sensitive mic element that draws very little power, making them great for QRP rigs. The cable has an integrated PTT switch, adding to the headsets' versatility. Non-IC models require AD-1 series cable, see the table on page 34.

| | | |
|---|---|---|
| HLS-BM-10-DYN | Lightweight Dual-Side Boomset | $131.00 |
| HLS-BM-10-IC | Lightweight Dual-Side Boomset, with AD-1-IC Cable | $154.00 |

PRYME

### Headsets for Mobile Radios

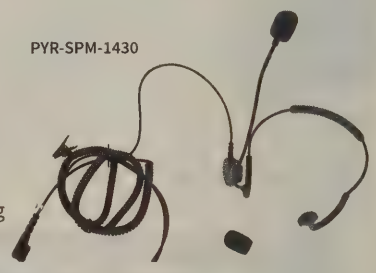



You can wear these headsets practically all day. They're light and comfortable, with a flexible mic boom. Pryme headsets have a single speaker and an integrated leatherette ear pad. Choose a headset to match your radio model.

| | | |
|---|---|---|
| PRY-HLP-SAL-M01J | Headset, for Kenwood | $129.95 |
| PRY-HLP-SNL-M00J | Headset, for Icom | $129.95 |
| PRY-HLP-SAL-M02J | Headset, for Vertex/Yaesu | $129.95 |
| PRY-HLP-SNL-M92J | Headset, for Yaesu | $129.95 |

PRYME

### Patriot Series Headset




If you prefer an "around the back" style headset, Pryme's Patriot Series fits the bill nicely. The unique design contributes to lasting comfort, perfect for Field Day or a contest all-nighter. It has a noise-cancelling flexible boom microphone and a single on-the-ear speaker.

| | | |
|---|---|---|
| PRY-SPM-1430 | Patriot Series Headset, for Icom ID-31A/51A | $49.95 |

### Handie-Talkie Headsets

Designed precisely for Amateur Radio handhelds, these Heil headsets let you work hands-free in the field. The slim, low profile design is discreet and lightweight, which means the headsets can be worn comfortably for hours. The single earpiece can be positioned on the left or right side. The headsets have a standard PTT switch. Select the one appropriate for your radio model below.

| | | |
|---|---|---|
| HLS-HTH-I | HT Headset for Icom 2-pin Plug | $29.00 |
| HLS-HTH-K | HT Headset for Kenwood 2-pin Plug | $29.00 |
| HLS-HTH-Y | HT Headset for Yaesu TRRS Plug | $29.00 |

# PRYME

### Synergy Speaker Microphones

These are great replacement speaker mics, offering factory performance in a rugged and durable package. They have an integrated 3.5mm jack, so you can add an earphone (sold separately). The Synergy series is covered by Pryme's 2-Year limited warranty.

| | | |
|---|---|---|
| PRY-SPM-630 | Synergy, Icom V80, I D-31A/51A and IP100H | $59.95 |
| PRY-SPM-601 | Synergy, Kenwood/Baofeng/ Wouxun, 2-pin Connector | $59.95 |
| PRY-SPM-602 | Synergy, Yaesu, 1-pin Connector | $59.95 |

### Observer Speaker Microphones

Despite their small size, these speakers really pack a punch. The optimized design is acoustically tuned to deliver loud, crisp audio. The compact size means that Pryme's Observer series microphones are perfect for a lapel, belt or epaulet. Designed for light-duty use, the Observers' powerful sound output can slice through noisy environments. This series features a 1-year limited warranty.

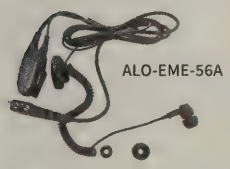
| | | |
|---|---|---|
| PRY-SPM-130 | Observer, Icom ID-31A/51A and IP100H | $28.95 |
| PRY-SPM-101 | Observer, Kenwood/Baofeng/ Wouxun, 2-pin Connector | $28.95 |
| PRY-SPM-102 | Observer, Yaesu, 1-pin Connector | $28.95 |
| PRY-SPM-142 | Observer, Yaesu, 1-pin Screw Connector | $28.95 |

# ALINCO

### Desk Microphone

Made to work precisely with your Alinco radio, this sleek mic gives you up/down frequency control (when used with a compatible radio), plus a PTT switch with a lock for those longer ragchews. Its electret condenser capsule has adjustable gain control and is powered by your radio. Click this mic's applications tab at DXEngineering.com to see the list of compatible Alinco radios.

| | | |
|---|---|---|
| ALO-EMS-14 | Desk Microphone | $119.95 |



### ALINCO Handheld Speaker Microphones and Earpieces

Ditch the bulky speaker mic with these compact setups. These mics are compatible with Alinco's most popular radios; visit their respective applications tab at DXEngineering.com to see which ones work with yours.

| | | |
|---|---|---|
| ALO-EME-32A | Speaker and Mic for Alinco DJ-G7T, -V17T, -V27T, -V47 | $74.95 |
| ALO-EME-56A | Speaker and Mic for Alinco DJ/500T, DJ-A Series | $34.95 |
| ALO-EME-23A | Earphone & Mic for Alinco HTs; | $24.95 |
| ALO-EME-13 | Handheld Speaker Headset, for Most Alinco HTs | $69.95 |

# KENWOOD

### Desk Microphones

Kenwood's desk microphones are the best complement to the legendary sound of a Kenwood transceiver. They have a large, locking PTT switch, plus up/down tuning buttons (for compatible radios). There are two mic impedance settings, so they're compatible with Kenwood's earlier radios. Plus, the MC60A has a built-in preamplifier that offers an effective audio boost for older radios. (Newer radios will typically not have to use this feature, so it can be switched off without affecting the audio signal.)

Upgrading to the MC-90 Deluxe Desk Microphone adds a slew of audio fine-tuning adjustments. It also comes with two interchangeable heads that deliver distinct mid- and high-range audio frequency response, That means you can tailor your mic's sound to your voice, which is vital to creating that critical on-air "punch."

| | | |
|---|---|---|
| KWD-MC-60A | Desk Microphone | $139.95 |
| KWD-MC-90 | Deluxe Desk Microphone; | $239.95 |

# KENWOOD

### Communications Headphones

With a vintage vibe that hearkens back to Amateur Radio's golden era, Kenwood's Communications Headphones provide the perfect frequency response for CW, SSB, AM and FM copy. They're ideal for SWL, yet they're also plenty comfortable for long running contests when used with your Kenwood microphone.

| | | |
|---|---|---|
| KWD-HS-5 | Communications Headphones | $74.95 |

### HT Headsets

Kenwood's got a pair of inconspicuous, lightweight, and compact headsets for its line of handhelds. Select from a single earbud earphone with a lapel clip mic, or a behind-the-head option with a single on-ear earpiece and a boom mic. Both headsets feature an inline PTT switch.

| | | |
|---|---|---|
| KWD-KHS-22 | Behind-the-Head HT Headset with Boom Mic | $32.95 |
| KWD-KHS-26 | Single Earbud HT Headset with Lapel Mic | $22.95 |

INRAD international radio

### Coming Soon!

**New from INRAD**-Noise reduction headsets designed for Amateur Radio with 600 ohm dynamic microphone elements for use with all brands of HF transceivers. Over-the-ear headphones comfortable for long hours of use, great sounding transmit audio. Release fall 2017.

### Expert Advice and Support.

Whether you're a Technician, General or Extra, our team of licensed operators is ready to offer advice and help you assemble your dream station. DX Engineering stocks thousands of parts—which means you get your order quickly.

# ICOM

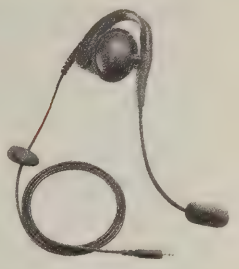
### Desktop Microphones

Here are the perfect microphones for your Icom base radio. They're unidirectional and ideal for SSB and FM voice operation. Each mic features a PTT button with PTT Lock switch, adjustable mic output, and a low-cut switch. Both mics terminate in an Icom 8-pin round female plug. There's a dynamic or an electric condenser mic option; select the one that best suits your operating style and environment—if you don't know, call us and we can help.

| | | |
|---|---|---|
| ICO-SM-30 | Desktop Microphone, Electret Condenser | $139.95 |
| ICO-SM-50 | Desktop Microphone, Dynamic | $269.95 |

# ICOM

### Lightweight Headsets


ICO-HS-94

You'll hardly even notice you're wearing one! These lightweight and versatile combination earpiece/microphone headsets deliver crystal clear sound reproduction. Regardless of the style you choose (over-the-ear or behind-the-head), they're a great option if you rely on your HT for hours of critical radio communications. Just listening? Grab Icom's single earpiece.

| | | |
|---|---|---|
| ICO-HS-94 | Over-the-Ear Headset | $24.95 |
| ICO-HS-95 | Behind-the-Head Headset; | $158.95 |
| ICO-SP-27 | Tube Earpiece | $34.95 |

***More Headsets at DXEngineering.com**

# YAESU

### Headsets and Earpieces

YSU-SSM-63A

Don't be saddled with your HT all day. Grab one of these headsets or earpieces and work hands-free. Select from a traditional lightweight mono headset with a boom mic, or a low-profile earset. Each option has an inline PTT switch, and the smaller earpieces include a handy lapel clip to keep the controls close at hand. Select the one you want based on your Yaesu radio model below.

| | | |
|---|---|---|
| YSU-SSM-63A | VOX Headset for FT-1/2DR, FT-60R, VX-3R | $69.95 |
| YSU-SSM-55A | Earpiece Lapel Mic for VX-6R, FT-270R | $39.95 |
| YSU-SSM-57A | Earpiece Lapel Mic for FT-1/2DR, VX-3R, FT-60R | $39.95 |

# YAESU

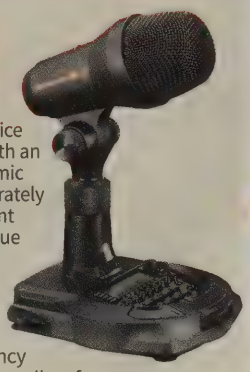
### Lightweight Stereo Headphones

Just listening tonight? Here's the perfect set of headphones. These comfy "cans" supply excellent sound reproduction. They come with a 4' audio cord and include a handy 1/8" phono to 1/4" phono jack adapter.

| | | |
|---|---|---|
| YSU-YH-77STA | Lightweight Stereo Headphones | $99.95 |

## YAESU

### Reference Microphone



Yaesu purpose-built this microphone to deliver the ultimate in Amateur Radio voice reproduction. It combines both an electret condenser and dynamic mic element, selectable separately or combined with independent adjustability to suit your unique voice characteristics.

The mic base incorporates a recorder/playback module to check out audio, plus a large graphic EQ and frequency response scope. Large buttons allow for near limitless adjustability. The mic itself can be fitted with the cowling to increase treble output. It can be configured for an 8-pin round or modular connector.

YSU-M-1 Reference Microphone ..... **$699.95**

## YAESU

### Desk Microphones

YSU-MD-100A8X

Made to Yaesu's strict performance standards, these microphones are tailor-made for your Yaesu base station. The MD100 Dynamic Desk Microphone is the one Yaesu recommends for all of its HF base station radios. It has a base-mounted PTT switch and comes with a reversible connector cable to make it compatible with all Yaesu radios.

Yaesu also makes the MD200 Ultra High Fidelity Desk microphone that delivers the uncompromised clarity you would expect from an audiophile-grade mic. The base has an integrated PTT switch and includes a reversible cable with an 8-pin modular plug.

YSU-MD-100A8X Desk Microphone ..... **$155.95**

YSU-MD-200A8X Ultra High Fidelity Desk Microphone ..... **$409.95**

## YAESU

New!

### Dual Element Desk and Reference Microphones

Yaesu purpose built these premier microphones to deliver the ultimate in Amateur Radio voice reproduction. They combine both an electret condenser and dynamic mic element, selectable separately or combined with independent adjustability to suit your unique voice characteristics.

The M-1's mic base incorporates a recorder/playback module to review audio, plus a large graphic EQ and frequency response scope. Large buttons allow for adjustability. The mic itself can be fitted with the cowling to increase treble output. It can be configured for an 8-pin round or modular connector.

The M-100 packs in all the audio performance of the M-1, just without the equalizer and display features.

YSU-M-1 Reference Microphone ..... **$699.95**

YSU-M-100 Dual Element Desk Microphone ..... **$459.95**

### Missing Something?

We can't put everything we carry in our catalog. If you need something from one of our manufacturers and you don't see it here, there's a good chance you'll find it at DXEngineering.com. If it's not listed online, call us, and we'll gladly special order it for you.

## DX ENGINEERING

### Footswitches

Go hands-free and speed up your operating. These new PTT footswitches from DX Engineering blend performance and value. You have three options: a budget friendly rugged plastic model, the stalwart cast iron version, and a new style with an extra-wide pedal—perfect for enthusiastic stomps.

DXE-FS-001 Footswitch, Plastic ..... **$29.95**

DXE-FS-002 Footswitch, Iron ..... **$69.95**

DXE-FS-003 Footswitch, Wide Pedal ..... **$99.95**

### Accessories to Complete Your Setup

This ergonomic switch lets you key your transceiver when using a microphone that doesn't have a PTT switch or when noisy environments render VOX operation impossible. It installs easily, terminating in a 1/4" phono plug.

HLS-HS-2 Pistol Grip Hand Switch ..... **$33.00**

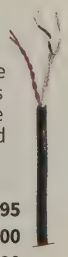
### Illuminated Microphone Bases

Heavy, durable and accented by colored LEDs, these Heil Sound microphone bases will add a dash of style to your shack. They have a PTT switch and work with most Heil Sound mics and accessories. You can select when you want the battery-powered LEDs to illuminate, either all the time or when the PTT switch is pressed. (The LEDs can also be turned off completely.) Choose either the LB-1R with a bright red base, or the sleek LB-1B with a black finish.

HLS-LB-1R Illuminated Microphone Base, Red ... **$100.00**

HLS-LB-1B Illuminated Microphone Base, Black; **$100.00**

### Heil Wire Bulk Microphone Cable



Specifically designed for mics, switches, keys, paddles and other audio/control devices, this cable consists of two 18 AWG shielded internal wires plus two 18 AWG wires external to the braid. Heil's cable is specially shielded to reduce hum, PTT pulses and RFI. It is made to fit neatly into 1/4 inch connectors and receptacles.

HLS-HW-10 Microphone Cable, 10 Feet..... **$14.95**

HLS-HW-20 Microphone Cable, 20 Feet..... **$23.00**

HLS-HW-50 Microphone Cable, 50 Feet..... **$56.00**

### PR 10 Microphone Package

The PR 10 combines a desk stand, boom and a microphone that exhibits outstanding speech articulation with perfect balance of highs and lows. The mic's frequency response makes the PR 10 an excellent choice for radio communication. The sturdy base is accented by LED lighting and the counterweighted boom offers several angles of articulation. It requires a Heil Sound CC-1 series XLR cable; find the right one for your radio at DXEngineering.com.

HLS-PR10 PR 10 Microphone Package .... **$277.00**

### Microphone Base Stand

Improving upon a timeless design, these heavy, polished chrome bases include a PTT switch that can also be used as a "cough" switch. It uses standard mic mounting threads and a 24" jumper cable is included to make mic installation a breeze.

HLS-CB-1-PTT Microphone Base Stand ..... **$79.00**

### Microphone Booms and Riser

Don't put your prized microphone on anything less than a professional-grade Heil Sound Boom. These quiet booms are sturdy and durable enough to go in the most active Ham shacks and sound studios. All booms are threaded to accept standard mic accessories and are the perfect compliment to your Heil Sound Microphone. The Riser is a great solution for mounting your boom behind your transceiver.

HLS-PL2T Topless Proline Microphone Boom ..... **$121.00**

HLS-HB-1 Large, Articulated Microphone Boom ..... **$71.00**

HLS-SB-2 Straight Boom, 17" with Stealth C-Clamp ..... **$64.00**

HLS-RS1 Boom Riser ..... **$29.00**

Microphone Boom/Arm Mounts available in several styles, these genuine Heil Sound mounts are the ideal way to secure your boom and keep your valuable microphone safe.

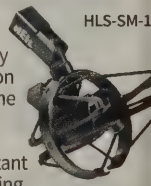
HLS-FL-2 Flange Mount ..... **$29.00**

HLS-DT1 Desktop Flush Mount ..... **$36.00**

HLS-WM1 Vertical Surface Mount ..... **$23.00**

HLS-PL2CLAMPR Replacement Mount for PL2T/SB-2/HB-1 ..... **$23.00**

### Shock Mount


HLS-SM-1

Using an 8-point suspension support system, these mounts fight off low frequency rumble and absorb noise caused by vibration and impact. The SM-1 is designed for slim-line Heil Sound microphones' 1" stem, while the PRSM is tailored to larger diaphragm professional-grade mics' 2" stem. It's important to check your microphone's fit before ordering.

HLS-SM-1 Shock Mount ..... **$81.00**

HLS-PRSM-B Shock Mount, Black Finish ..... **$106.00**

HLS-PRSM-C Shock Mount, Champagne Finish ..... **$106.00**

### Heritage Microphone

Similar-looking mics have graced recording booths, news desks, and late night shows since the dawn of broadcasting. The Heritage Microphone retains Heil's legendary sound reproduction, delivering the clarity and response that's perfect for Amateur Radio. This dynamic mic has a wide audio spectrum, making it well suited to PA and recording studio applications. It has a 3-pin XLR connection.

| | | |
|---|---|---|
| HLS-HHG | Heritage Microphone, Show Chrome Finish | $187.00 |
| HLS-HHGB | Heritage Microphone, Black Finish | $187.00 |

### PR 77 Microphone

Styled after the classic RCA 77, this mic is perfect for podcasts, desktop recording and (of course) Amateur Radio. The PR 77 boasts excellent speech articulation and selectable frequency response—simply flip the body-mounted switch to choose the best characteristics for either music or voice reproduction. This dynamic mic has a cardioid pickup pattern with high rear and side rejection, which makes it a great option for a shack with a lot of ambient noise.

| | | |
|---|---|---|
| HLS-PR77 | PR 77 Microphone | $249.00 |

### HM-12 Genesis Series Microphone

A Microphone designed specifically for you, the Ham radio operator. Made to work well with almost any low-impedance transceiver, this microphone is well suited to reproduce the human voice. It also features an internal windscreen to cut down on annoying P-pops. This mic uses a 4-pin XLR connector with a soft touch PTT switch wired to pins 3 and 4, while pins 1 and 2 carry audio.

| | | |
|---|---|---|
| HLS-HM-12 | Genesis Series Microphone | $72.00 |

### PR 781 Microphones

Heil gives you a professional-quality microphone that will provide years of service in your shack. Building upon the legendary PR 780, these dynamic cardioid microphones feature a wide frequency response that retains the signature Heil Sound voice articulation.

The PR 781 works well with practically any high-quality transceiver. In fact, you'll find these same mics used in many commercial broadcast studios. This mic uses a 3-pin XLR plug.

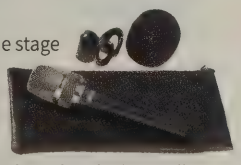
| | | |
|---|---|---|
| HLS-PR781 | PR 781 Mic, Black Screen | $200.00 |
| HLS-PR781G | PR 781 Mic, Gold Screen | $220.00 |

### PR 40 Microphone

With the widest frequency range of any dynamic mic in the PR series, this microphone is the workhorse of professional sound recording studios. It features a shock-mounted, low mass diaphragm, which gives you stellar sound reproduction in a durable chassis. An internal filter prevents dreaded breath blast and cuts down on P-pops, too. This microphone is simply one of the best all-around mics for audio engineers and Ham operators alike. This mic uses a 3-pin XLR plug.

| | | |
|---|---|---|
| HLS-PR40 | PR 40 Microphone | $328.00 |

### PR 22 Microphone



A mic that's equally suited to the stage or shack. This microphone has exceptionally low handling noise and is extremely rugged, which means it can double as a PA mic for your next club meeting. The PR 22 delivers rich, broad and crisp audio. The utility series comes with a stainless mesh screen, mic stand clip, foam windscreen and zippered pouch.

| | | |
|---|---|---|
| HLS-PR22-UT | PR 22 Microphone, Utility Series, 3-pin XLR | $117.00 |

### "The Fin" Microphone

The Fin recreates a classic vintage vibe, but uses a modern voice coil similar to Heil Sound's famous PR 20 dynamic microphone. You get excellent frequency response, specifically in the human voice sweet spot. Vibrant LEDs hidden behind the windscreen activate when fed with phantom power. This mic has a 3-pin XLR plug.

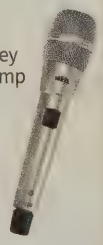
**Show Chrome Finish**

| | | |
|---|---|---|
| HLS-FIN | The Fin, Blue LEDs | $221.00 |
| HLS-FINR | The Fin, Red LEDs | $242.00 |
| HLS-FINW | The Fin, White LEDs | $242.00 |

**Black Finish**

| | | |
|---|---|---|
| HLS-FIN-BK-BL | The Fin, Blue LEDs | $221.00 |
| HLS-FIN-BK-RD | The Fin, Red LEDs | $242.00 |
| HLS-FIN-BK-WT | The Fin, White LEDs | $242.00 |

### iCM Microphone



Owners of early Icom transceivers know that they don't have a lot of gain in the microphone preamp stage. Heil Sound gives you a boost with a mic specifically suited to those transceivers. Heil Sound worked closely with Icom engineers to build a mic with an excellent frequency response, coupled with a higher output to compensate for the lack of gain from early Icom transceivers. Includes cable with 8-pin round mic connector.

| | | |
|---|---|---|
| HLS-ICM | iCM Microphone | $119.00 |

### Handi Mic Microphones

These mics are the answer to muffled audio response. Well-suited to Amateur Radio use, they capture crisp, clean and articulate audio. Their rugged internal shock mount makes them a durable addition to your shack. They also feature low noise handling characteristics, making them great for use in mobile or field applications. A dash/wall mount and windscreen are included. This mic uses a 4-pin XLR plug. The Handi Mic iC uses a high-performance output specifically tailored to Icom transceivers. The Handi Mic Pro contains the wide-range broadcast element, ideal for VHF FM rigs.

| | | |
|---|---|---|
| HLS-HM-IC | Handi Mic iC | $91.00 |
| HLS-HM-PRO | Handi Mic Pro | $91.00 |

### GM Series Microphone

The gold standard of radio microphones—Heil Sound's GM Series mics offer crystal-clear audio response. They feature an exclusive light-touch PTT switch and a 4-pin XLR connector, and include a mic clip and windscreen.

The GM Vintage Microphone is tailored to full-range articulate SSB audio, particularly when paired with some high-impedance inputs typically found on older tube-type equipment.

| | | |
|---|---|---|
| HLS-GM-V | GM Series Vintage Microphone | $162.00 |

### Gold Elite Microphone

Heil Sound specifically crafts this microphone for the Ham radio community. The microphone includes two distinct dynamic elements, selectable with the flip of a switch. The "Wide" setting is ideal for general voice articulation. The "Narrow" setting accentuates the lower frequency range of human voice to help smooth out the audio response. This mic uses a 4-pin XLR plug.

| | | |
|---|---|---|
| HLS-GM-ELITE | Gold Elite Microphone | $164.00 |

INRAD international radio

### Microphones

INRAD has just introduced a line of quality microphones boasting performance and value for Hams at every level. Each one has its own specialized dynamic element and unique style. They all come with a 3-pin XLR to 1/8" adapter cable for easy hookup. Certain radios may require an additional adapter, see below.

**M629**

Tailored to modern radios including the latest SDRs, the M629 has a brilliant cardioid dynamic element with excellent frequency response.

| | | |
|---|---|---|
| INR-M629 | M629 Microphone | $79.00 |

**M650**

One of INRAD's most popular mics, with audio response similar to the M628 and M686. It has a cardioid element and internal breath screen.

| | | |
|---|---|---|
| INR-M650 | M650 Microphone | $79.00 |

**M686**

Excellent transmit audio, reminiscent of the M629 and M650, with a black metal frame, cardioid element, and internal breath screen.

| | | |
|---|---|---|
| INR-M686 | M686 Microphone | $69.00 |

**M665**

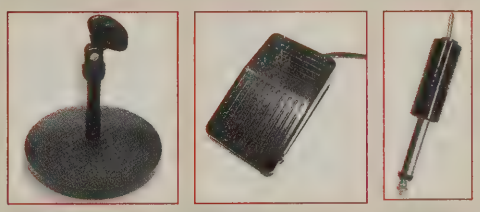
Retro chrome look and unidirectional element with bright midrange and a built in filter to mitigate breath noise and p-pops.

| | | |
|---|---|---|
| INR-M665 | M665 Microphone | $69.00 |

**M628**

Value-priced counterpart to the M650, boasting a similar cardioid element with a focused 40 Hz to 15 kHz response that's well suited to SSB.

| | | |
|---|---|---|
| INR-M628 | M628 Microphone | $69.00 |



INR-M605 INR-M-FS INR-M-HS

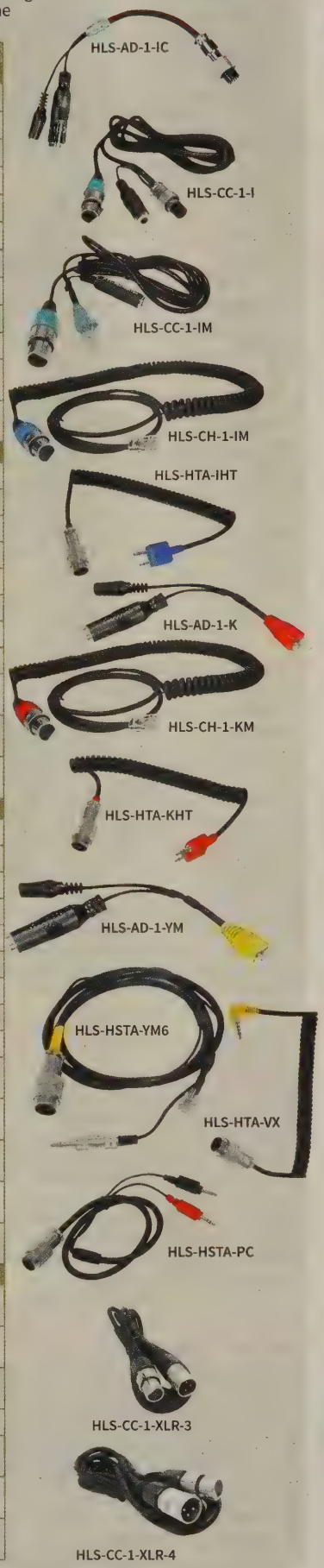
**Accessories**

| | | |
|---|---|---|
| INR-M-I | Adapter for Modern Icom 8-pin Mic Jack | $14.95 |
| INR-M-K | Adapter for Kenwood 8-pin Mic Jack | $14.95 |
| INR-M-Y | Adapter for Yaesu/Flex/Ten-Tec 8-pin Mic Jack | $14.95 |
| INR-M-YM | Adapter for Yaesu Modular RJ-45 Mic Jack | $14.95 |
| INR-M605 | Desk Stand with Mic Clip | $11.95 |
| INR-M-FS | PTT Foot Switch | $14.95 |
| INR-M-HS | PTT Hand Switch | $5.95 |

## Cables and Adapters

These assemblies let you connect your Heil Sound mics and accessories to your transceiver. Depending on the application, they include the manufacturer-specific plugs for your mic/headset, PTT switch and transceiver. If you need help choosing the right adapter, visit DXEngineering.com, select your mic or headset, and the "suggested parts" tab will show you some options.

| Part Number | Description | Price |
|---|---|---|
| **Icom** | | |
| HLS-AD-1-I | Pro Set 8-pin Adapter Cable | $24.00 |
| HLS-AD-1-IM | Pro Set Modular Adapter Cable | $24.00 |
| HLS-AD-1-IC | Pro Set 8-pin Adapter Cable | $24.00 |
| HLS-AD-1-ICM | Pro Set Modular Adapter Cable | $24.00 |
| HLS-CC-1-I | XLR4 to 8-pin Mic Cable | $40.00 |
| HLS-CC-1-IM | XLR4 to Modular Mic Cable | $40.00 |
| HLS-CC-1-XLR-I | XLR3 to 8-pin Mic Cable | $40.00 |
| HLS-CH-1-I8 | XLR4 to 8-pin Mic Coil Cable | $27.00 |
| HLS-CH-1-IM | XLR4 to Modular Mic Coil Cable | $27.00 |
| HLS-HSTA-IC8 | Traveler Headset Adapter, Icom 8-pin | $27.00 |
| HLS-HSTA-IM | Traveler Headset Adapter, Icom Modular | $27.00 |
| HLS-HTA-IHT | Traveler Headset Adapter, Icom HT Dual Plug | $27.00 |
| **Kenwood** | | |
| HLS-AD-1-K | Pro Set 8-pin Adapter Cable | $24.00 |
| HLS-AD-1-KM | Pro Set Modular Adapter Cable | $24.00 |
| HLS-CC-1-K | XLR4 to 8-pin Mic Cable | $40.00 |
| HLS-CC-1-K4 | XLR4 to 4-pin Mic Cable | $40.00 |
| HLS-CC-1-KM | XLR4 to Modular Mic Cable | $40.00 |
| HLS-CC-1-XLR-K | XLR3 to 8-pin Mic Cable | $40.00 |
| HLS-CH1-K8 | XLR4 to 8-pin Mic Coil Cable | $27.00 |
| HLS-CH-1-KM | XLR4 to Modular Mic Coil Cable | $27.00 |
| HLS-HSTA-K8 | Traveler Headset Adapter, Kenwood 8-pin | $27.00 |
| HLS-HSTA-KM | Traveler Headset Adapter, Kenwood Modular | $27.00 |
| HLS-HTA-KHT | Traveler Headset Adapter, Kenwood HT Dual Plug | $27.00 |
| **Yaesu** | | |
| HLS-AD-1-Y | Pro Set 8-pin Adapter Cable | $24.00 |
| HLS-AD-1-Y4 | Headset 4-pin Adapter Cable | $24.00 |
| HLS-AD-1-YM | Pro Set Modular Adapter Cable | $24.00 |
| HLS-CC-1-Y | XLR4 to 8-pin Mic Cable | $40.00 |
| HLS-CC-1-YM | XLR4 to RJ45 Modular Mic Cable | $40.00 |
| HLS-CC-1-XLR-YB | XLR3 to 8-pin Mic Cable, PTT Connector | $40.00 |
| HLS-CC-1-XLR-YM | XLR3 to 8-pin Modular, Balanced | $40.00 |
| HLS-CH-1-Y8 | XLR4 to 8-pin Mic Coil Cable | $27.00 |
| HLS-CH-1-YM | XLR4 to Modular Mic Coil Cable | $27.00 |
| HLS-AD-100 | Yaesu 8-pin Round to 6-pin Modular Adapter | $24.00 |
| HLS-ADMY-817 | Yaesu 8-pin Mic to FT-817-450 Modular Adapter (-897,-991) | $30.00 |
| HLS-HSTA-YM | Traveler Headset Adapter, Yaesu 8-pin Modular, RJ45 | $27.00 |
| HLS-HSTA-YM6 | Traveler Headset Adapter, Yaesu 6-pin Modular, RJ45 | $27.00 |
| HLS-HTA-VX | Traveler Headset Adapter, Yaesu 1/8" 4-Conductor Plug | $27.00 |
| **Miscellaneous** | | |
| HLS-HSTA-PC | Traveler Headset Adapter, Computer, Data/SP/Mic Plugs | $27.00 |
| HLS-CC-1-T | Microphone Adapter, TEN-TEC, XLR4 to 4-pin | $40.00 |
| HLS-AD-1-C | Headset Adapter, Collins/Drake, 3/16" Plug, 1/4" Jack | $30.00 |
| HLS-AD-1-T | Headset Adapter, TEN-TEC, 4-pin, 1/4" Jack | $24.00 |
| HLS-CC-1-C | Microphone Adapter, Collins/Drake, 4-pin to XLR4 | $49.00 |
| HLS-CC-1-XLR-3 | Mic Cable with Connectors, 3-pin XLR Male to Female, 8' | $40.00 |
| HLS-CC-1-XLR-4 | Mic Cable Adapter, for XLR4 HM/GM Mics to XLR3 | $40.00 |



## Genuine Heil Parts and Accessories

If you want to give your mic or headset a tune-up, then Heil Sound offers you accessories and replacement parts to do it. If you're looking for a specific part, don't hesitate to let us know and we'll do our best to find it for you.

| Part Number | Description | Price |
|---|---|---|
| HLS-HBA | Bluetooth® Adapter | $119.00 |
| HLS-BAG1 | Headset Gear Bag for Pro Set | $29.00 |
| HLS-BC | Boom Clip for Pro Set | $8.95 |
| HLS-PS-EPC | Ear Pad Covers for Pro Set (Pair) | $10.95 |
| HLS-EP-FOAM-PS | Foam for Pro Set Ear Pads (Pair) | $7.95 |
| HLS-EP-PSP | Ear Pads for Pro Set Plus/Elite (Pair) | $10.95 |
| HLS-EP-PMP | Ear Pads for Pro Micro/New Traveler (Pair) | $10.95 |
| HLS-EP-PS | Ear Pads for Pro Set Series (Pair) | $10.95 |
| HLS-EP-BM-BLACK | Ear Pads for BM Series (Pair) | $8.95 |
| HLS-HMCLIP | Clip for GM/HM/PR Mics, 5/8"-27 Thread | $11.95 |
| HLS-WSHM | Windscreen for Handi Mic Series | $9.95 |
| HLS-WSM | Windscreen for PR 20/35 and GM Mic | $9.95 |
| HLS-WSPR40 | Windscreen for PR 30 and PR 40 Mic | $21.00 |
| HLS-WSPS | Windscreen for Pro Set Mic | $8.95 |
| HLS-WSPSP | Windscreen for Pro Set Plus Mic | $8.95 |
| HLS-WSTRAV | Windscreen for Traveler Headset Mic | $8.95 |
| HLS-XLR-3F | 3-pin XLR Female Connector | $8.95 |
| HLS-XLR-3M | 3-pin Male XLR Connector | $8.95 |
| HLS-XLR-4M | 4-pin XLR Male Connector | $8.95 |
| HLS-XLR-4F | 4-pin Female XLR Connector | $8.95 |
| HLS-XT-1 | High-to-Low Impedance Matching Transformer | $18.00 |
| HLS-HC51RETROKIT | Mic Element Upgrade Kit | $68.00 |

## Pro 7 Contest/DX Element

If you've got a Pro 7 headset and do a lot of contesting, you may want to swap out the stock mic element for this purpose-built unit. It's a modified version of the venerable HC-4 element, with a sharp roll-off at 600 Hz and a 10 dB boost between 25-30 kHz. Those tweaks allow for clear, articulate voice reproduction that works well in busting through pileups.

HLS-PRO74-DYNELE Pro 7 Contest/DX Element.... **$69.95**

### Portable Canopy Shelter

Going into the field or to a Hamfest? Protect yourself and your gear from rain and sun with this durable 10' x 10' canopy. It's made from black polyester fabric supported by a rugged metal frame. Better still, the canopy collapses down into an included carrying bag for easy transport.

DXE-CANOPY Portable Canopy Shelter... **$129.95**

### DX Engineering Tote Bag

This canvas tote bag can fit Hamfest handouts, a small QRP rig, your HT or Field Day munchies. It's made of heavy-grade canvas to resist rips and tears, and the bottom is reinforced to handle additional weight. There are inside and outside pockets to secure your small stuff. Plus, the bag's wide straps mean you can lug it around comfortably for hours.

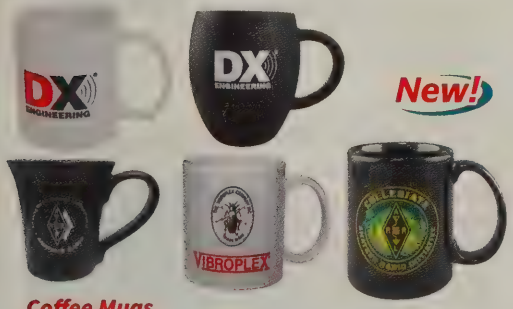
DXE-TOTE Tote Bag ..... **$35.95**

### DX Engineering Sport Bag

An ideal travel companion, this sport bag can hold everything from your spare cables and gear to an extra pair of socks for soggy Field Days. Made from polyester cloth with a PVC coating for moisture resistance. The padded foam bag has several zippered pockets—including one big enough for a pair of shoes. The bag's detachable strap makes it easy to sling over your shoulder.

New!

DXE-SPORTBAG2017 Sport Bag ..... **$42.95**



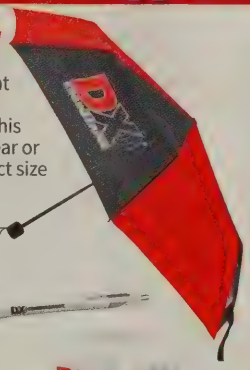

New!

### Coffee Mugs

Be the envy of your club with a bonafide Ham Radio mug, or go on the road with the ARRL Insulated Travel Tumbler. The tumbler has a spill-resistant cap so you won't accidentally douse your radio with coffee.

| | | |
|---|---|---|
| ARR-1016 | ARRL Diamond Logo Mug | **$13.95** |
| ARR-2082 | ARRL Collegiate Initiative Mug; | **$12.00** |
| VIB-COFFEMUG | Vibroplex Mug | **$8.95** |
| DXE-COFFEEMUG | DX Engineering Mug, White | **$7.95** |
| DXE-MUG-2016 | DX Engineering Mug, Black | **$14.95** |

### DX Engineering Umbrella



It's an excellent way to keep the sun from baking your equipment (or your neck) during Field Day. With a large, 36 inch diameter, this umbrella can cover you, your gear or the XYL. It collapses to a compact size and includes a carrying pouch.

DXE-UMBRELLA ..... **$7.95**

### DX Engineering Shack Accessories

What better way to write down your DX Engineering part numbers than with an authentic DX Engineering Pen and Note Cube? Better yet, your mouse can glide over to DXEngineering.com on an ultra-cool Mouse Pad!

| | | |
|---|---|---|
| DXE-PEN-2016 | Pen | **$2.95** |
| DXE-NOTECUBE | Note Cube | **$9.95** |
| DXE-MOUSEPAD | Mouse Pad | **$8.95** |

### Pocket Pad

With no batteries to charge and no software to update, our new Pocket Pad is a handy way to record notes and ideas. Better yet—it's compatible with both pen AND pencil. The Pocket Pad is the perfect size for a shirt pocket and has 80 lined notebook pages.

New!

DXE-POCKET-PAD Pocket Pad ..... **$6.95**

### DX Engineering Folding Chair

Made from water-resistant poly-canvas, this durable chair is designed for heavy-duty use. This folding chair supports 350 lbs. and is big enough to be comfortable! It also has an HT or beverage holder in one arm—Brown 807s anyone?

It's perfect for extra seating on the deck or in the yard. When you're looking for a new camp-type folding chair, remember this rugged, large DX Engineering Folding Chair.

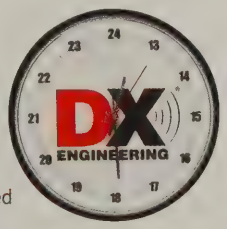
DXE-FC-1BK Folding Chair with Bag ..... **$19.95**

### DX Engineering Ball Cap

Arm yourself with the latest in sun blocking, head-covering technology—the DX Engineering Ball Cap. Straight from the Paris runway, this fashionable cap proudly displays the full-color DX Engineering logo. It's fully adjustable, for style-conscious Amateur Operators of all sizes.

DXE-HAT Ball Cap..... **$9.95**

### 24 Hour Wall Clock



Since you're probably logging on 24 hour time (UTC), why not have a clock that gives it to you. As an added bonus, the 12" clock proudly sports the DX Engineering logo. It runs on a single AA battery (not included).

DXE-WALLCLOCK 24 Hour Wall Clock..... **$29.95**

### DX Engineering Polo Shirts

When your next club event or Hamfest calls for business casual attire, reach for your DX Engineering polo shirt. They're made of a lightweight, breathable polyester weave for outdoor and indoor comfort. They're available in men's and women's styles and sizes.

| | | |
|---|---|---|
| DXE-TMA-10031 | Polo Shirt, Men's Medium | **$31.95** |
| DXE-TMA-10032 | Polo Shirt, Men's Large | **$31.95** |
| DXE-TMA-10033 | Polo Shirt, Men's X-Large | **$31.95** |
| DXE-TMA-10034 | Polo Shirt, Men's 2X-Large | **$33.95** |
| DXE-TMA-10035 | Polo Shirt, Men's 3X-Large | **$35.95** |
| DXE-TMA-10041 | Polo Shirt, Women's Medium | **$31.95** |
| DXE-TMA-10042 | Polo Shirt, Women's Large | **$31.95** |
| DXE-TMA-10043 | Polo Shirt, Women's X-Large | **$31.95** |

### DX Engineering T-Shirts

Ham Radio shirts are a great way to meet other Operators and make some eyeball QSOs. These 100% cotton shirts come in one of three colors and feature the DX Engineering logo. We've added a new design which has the logo on the back too, so you can show off your Ham pride coming or going.

**White, Single Logo, Embroidered**

| | | |
|---|---|---|
| DXE-TMA-10019 | Large | **$13.95** |
| DXE-TMA-10020 | X-Large | **$13.95** |
| DXE-TMA-10021 | 2X-Large | **$16.95** |

**Black, Single Logo, Embroidered**

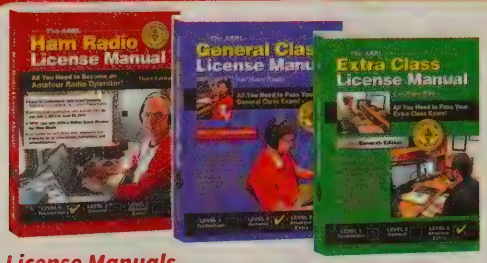
| | | |
|---|---|---|
| DXE-TMA-10016 | Large | **$13.95** |
| DXE-TMA-10017 | X-Large | **$13.95** |
| DXE-TMA-10018 | 2X-Large | **$16.95** |

**Black, Dual Logos, Silkscreened**

| | | |
|---|---|---|
| DXE-TMA-10061 | Small | **$9.95** |
| DXE-TMA-10062 | Medium | **$9.95** |
| DXE-TMA-10063 | Large | **$9.95** |
| DXE-TMA-10064 | X-Large | **$9.95** |
| DXE-TMA-10065 | 2X-Large | **$11.95** |
| DXE-TMA-10066 | 3X-Large | **$11.95** |

**Pink, Women's Sizes, Embroidered**

| | | |
|---|---|---|
| DXE-TMA-10051 | Medium | **$17.95** |
| DXE-TMA-10052 | Large | **$17.95** |
| DXE-TMA-10053 | X-Large | **$17.95** |
| DXE-TMA-10054 | 2X-Large | **$18.95** |




## License Manuals

For decades, Amateur Operators have trusted the ARRL License Manuals to help them pass their exams. The books include easy-to-understand lessons and a comprehensive set of sample exam questions. They're the perfect companion for the ARRL's Exam Review for Ham Radio™ online resource available for free at ARRL.org. Study guides purchased from DX Engineering always contain the current FCC question pools.

| | | |
|---|---|---|
| ARR-0222 | Tech Class License Manual | $29.95 |
| ARR-0307 | General Class License Manual | $29.95 |
| ARR-0451 | Extra Class License Manual | $29.95 |

## Heil Sound

*It All Starts with the Microphone Book*

Written by the legendary Bob Heil K9EID, this is one of the best primers in microphone theory available. From microphone types to their applications, K9EID demonstrates exactly how, when and why to properly use a microphone to achieve the sound you want. It's a great read for Amateur Operators, musicians, audiophiles or audio engineers.

*Heil Ham Radio Handbook*

Featuring 128 pages that are chock full of useful information, Bob's book will take you from very basic Ham Radio principles to advanced technologies. Bob's easy, conversational style of writing for technical subjects will help you to quickly understand what radio (and audio) is all about.

| | | |
|---|---|---|
| HLS-PROBOOK | It All Starts with the Microphone Book | $16.95 |
| HLS-HHB | Heil Ham Radio Handbook | $16.00 |

## Reference and Operating Guides

Stay up-to-date with the latest modes, band plans, frequency allocations and more. These Nifty guides are indispensable resources for your shack, EMCOMM trailer or club library. DX Engineering also has over 100 of Nifty Reference Guides and Quick Reference Cards, covering a wide range of Amateur Radio equipment. Visit DXEngineering.com to see them all.

| Part Number | Description | Price |
|---|---|---|
| NIF-EZ-D-STAR | E-Z Guide to D-STAR Operation | $15.95 |
| NIF-EZ-ECHOLINK | E-Z Guide to EchoLink Operation | $15.95 |
| NIF-EZ-PSK31 | E-Z Guide to PSK31 Operation | $14.95 |
| NIF-MM-BANDPLAN | HF/VHF/UHF Bands Operating Guide | $10.85 |
| NIF-MM-DXFIELD | DX Field Reference | $15.85 |
| NIF-MM-RADIOMG | Radio Monitoring Guide | $15.85 |

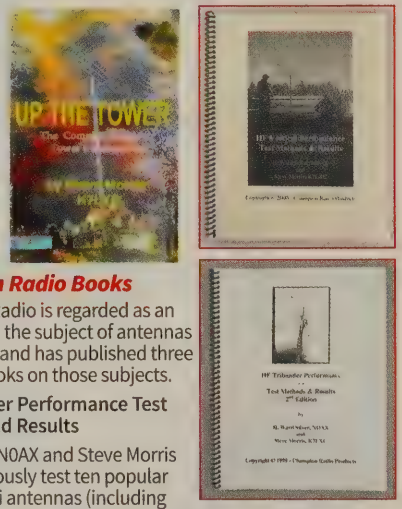
DXPEDITION VIDEOS By K4UEE

## K4UEE DXpedition Videos

See the adventure, camaraderie, and excitement that develop during a DXpedition. From renowned DX traveler Bob Allphin K4UEE, the DVDs reveal Ham Radio stories that illustrate the funny, interesting and sometimes-scary situations the teams encounter during a DXpedition. Entertaining and informative, they're perfect if you (or your club) want to plan your own DXpedition—or if you want to see what it's like on the other side of the pile-up!

K4UEE just added a brand new video documenting the K1N Navassa Island DXpedition, an adventure over ten years in the making. Witness the logistical challenges the team overcame to launch such an intrepid DXpedition. And stay tuned; thanks to the fervid DXpedition activity in 2016, more videos are coming next year.

| | | |
|---|---|---|
| UEE-K1N | 2015 K1N Navassa Island DVD | $25.00 |
| UEE-FT5ZM | 2014 FT5ZM Amsterdam Island DVD | $25.00 |
| UEE-HK0NA | 2012 HK0NA Malpelo Island DVD | $25.00 |
| UEE-K5D | 2009 K5D Desecheo Island DVD | $25.00 |
| UEE-3X5A | 2007 3X5A Guinea, West Africa DVD | $22.00 |
| UEE-3Y0X | 2006 3Y0X Peter I Island DVD | $25.00 |
| UEE-K5K | 2002 K5K Kingman Reef DVD | $22.00 |
| UEE-VP8THU-GEO | 2002 VP8THU/VP8GEO South Sandwich/South Georgia Islands DVD | $22.00 |
| UEE-XT2DX | 2002 XT2DX Burinka Faso DVD | $22.00 |
| UEE-DXCC | Nine DXpeditions to DXCC Ten Most-Wanted DVD | $16.95 |




## Champion Radio Books

Champion Radio is regarded as an authority on the subject of antennas and towers, and has published three in-depth books on those subjects.

**HF Tribander Performance Test Methods and Results**

Ward Silver N0AX and Steve Morris K7LXC rigorously test ten popular tri-band Yagi antennas (including the DX Engineering Skyhawk™). This updated edition outlines the test protocol, conditions and results.

**HF Vertical Performance Test Methods and Results**

Ward Silver N0AX and Steve Morris K7LXC complement their acclaimed HF Tribander book, auditioning several verticals from Butternut® Antennas, MFJ, Diamond and more. The test results are well chronicled.

**Up the Tower, The Complete Guide to Tower Construction**

Steve Morris K7LXC has built a lot of towers, and he's put everything he's learned along the way into this book. It covers building codes, proper guying, safety, respecting your neighbors and more.

| | | |
|---|---|---|
| CRP-TRIBANDBOOK | HF Tribander Performance, 2nd Edition | $20.00 |
| CRP-VERTBOOK | HF Vertical Performance | $20.00 |
| CRP-TOWERBOOK | Up the Tower | $35.00 |

## Contest University Textbooks

Couldn't make it to Dayton? These paperbacks are the same ones distributed at the annual Contest University seminars. Whether you're a seasoned contester or just becoming interested in this exciting facet of Ham radio, these textbooks are valuable additions to your library. Topics include everything from helpful tips and pointers to advanced operating methods and RF theory. We've also bundled all of these textbooks together in a money-saving combo.

| | | |
|---|---|---|
| CUB-CTU-LIBRARY | Contest University Collection of 7 Textbooks | $135.65 |
| CUB-CTU-2012 | 2012 CTU Textbook | $19.95 |
| CUB-CTU-2013 | 2013 CTU Textbook | $19.95 |
| CUB-CTU-2014 | 2014 CTU Textbook | $19.95 |
| CUB-CTU-2015 | 2015 CTU Textbook | $19.95 |
| CUB-CTU-2016 | 2016 CTU Textbook | $19.95 |
| CUB-CTU-2017 | 2017 CTU Textbook | $19.95 |
| CUB-CTU-CENTENNI | 2014 ARRL Centennial CTU Textbook | $15.95 |

## Technician and General Class License Course Books

HAM RADIO SCHOOL.COM

Two of the best study guides available, these books contain everything you'll need to know to pass the licensing exam. The illustrated paperbacks offer the perfect mix of technical information and practical real-world examples.

Author Stu Turner W0STU holds an Extra Class license and also served as a U.S. Air Force Academy Engineering Professor. So he knows how to arm you with the confidence to pass the test. After you're licensed, these books are great additions to your technical library.

The new Technician's Class Course Book includes the updated 2014-18 FCC question pool.

| | | |
|---|---|---|
| HDS-TECHBOOK2018 | Technician License Course, 226 Pages | $19.95 |
| HDS-GENBOOK2019 | General License Course, 277 Pages | $19.95 |

## Contact Sport, a Story of Champions, Airwaves and a One-Day Race Around the World

Let this book take you inside the tents, so you may learn for yourself the appeal of Radiosport. Author J. K. George N3BB guides you through the world of Amateur Radio competition and the intriguing characters of a recent World Radiosport Team Championship. If you're interested in this exciting facet of Ham Radio, this book will show you what it's all about.

| | | |
|---|---|---|
| ARR-4199 | Contact Sport Book | $22.95 |

### DXing on the Edge, 2nd Edition

Love 160 Meters? Author Jeff Briggs, K1ZM has compiled a new edition of his acclaimed book. It's filled with everything a diehard Topbander should know, including historical information, operating tricks and station tips. This paperback crams a ton of Top Band tidbits into 256 pages—a great read for the 160M aficionado.

DXE-DXINGBOOK DXing on the Edge Book..... **$20.18**

### W5YI Group AmateurRadio License Study Guides

Gordon West and the W5YI Group arranged these manuals to be easy to read and comprehend. The straightforward presentation helps you retain the lessons you've learned. That means you can go into your exam confident that you'll pass the test. Each book is bundled with a bonus "On the Air" audio CD that explains your new band privileges.

The FCC recently updated the Extra Class License Question Pool, so the W5YI Extra Class Instruction Book has been revised as well. Remember, when you purchase any study material from DX Engineering, you'll always receive the most up-to-date editions.

| | | |
|---|---|---|
| WYI-GWTM-14 | W5YI Group Technician Class Study Guide | **$21.95** |
| WYI-GWGM-15 | W5YI Group General Class Study Guide | **$24.95** |
| WYI-GWEM-16 | W5YI Group Extra Class Study Guide | **$29.95** |

### CQ Magazine Publications

*Understanding, Building, and Using Baluns and Ununs*

W2FMI Jerry Sevick's compilation of balun performance and design criteria. It offers clear explanations to prompt further discussion of theory and applications.

CQM-SEVICKBALUNS Understanding, Building, and Using Baluns and Ununs ..... **$19.95**

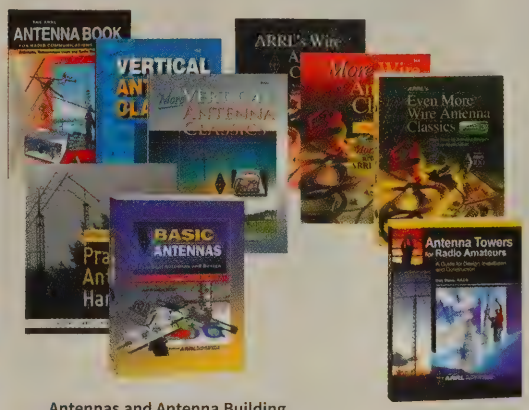
### DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card.

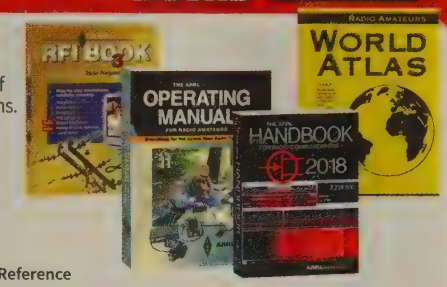
Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

## ARRL Literature

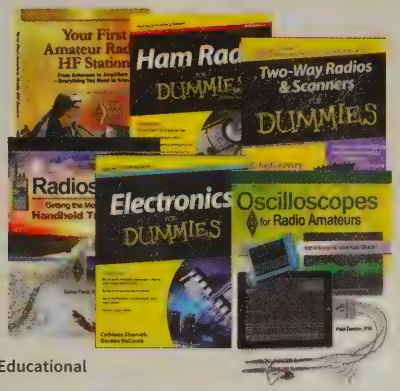
Stay up to date with the latest technological advances in our hobby. Books from the ARRL are the go-to resource for Amateur Operators of any expertise level. Build your technical library with ARRL publications.




Antennas and Antenna Building

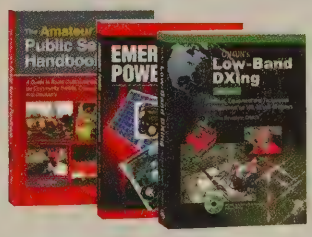



Reference




Educational

Software and Digital Modes




EMCOMM and HF

### Reference

| | | |
|---|---|---|
| ARR-0721 | ARRL Handbook, 2018 Edition, Hardcover | **$55.95** |
| ARR-0710 | ARRL Handbook, 2018 Edition, Softcover | **$49.95** |
| ARR-0598 | ARRL Operating Manual, 11th Edition | **$24.95** |
| ARR-0697 | ARRL 2017-18 Repeater Directory, Spiral-Bound Desktop Edition | **$17.95** |
| ARR-5226 | Radio Amateur's World Atlas | **$12.95** |
| ARR-0915 | RFI Book, 3rd Edition | **$29.95** |

### Antennas and Antenna Building

| | | |
|---|---|---|
| ARR-0499 | Antenna Physics | **$29.95** |
| ARR-0444 | Antenna Book, 23rd Edition, Softcover | **$49.95** |
| ARR-5218 | Vertical Antenna Classics | **$12.00** |
| ARR-9795 | More Vertical Antenna Classics | **$17.95** |
| ARR-7075 | Wire Antenna Classics | **$13.95** |
| ARR-7709 | More Wire Antenna Classics, Vol. 2 | **$17.95** |
| ARR-0239 | Even More Wire Antenna Classics, Vol. 3 | **$19.95** |
| ARR-0371 | Practical Antenna Handbook | **$51.95** |
| ARR-9994 | Basic Antennas, Understanding Practical Antennas and Designs | **$29.95** |
| ARR-1017 | Experimental Methods in RF Design | **$49.95** |
| ARR-0946 | Antenna Towers for Radio Amateurs | **$34.95** |
| ARR-0219 | Stealth Antennas, 2nd Edition | **$24.95** |
| ARR-9156 | International Antenna Collection Vol. 1 | **$19.95** |
| ARR-9465 | International Antenna Collection Vol. 2 | **$21.95** |

### Educational

| | | |
|---|---|---|
| ARR-0079 | Your First Amateur Radio HF Station | **$19.95** |
| ARR-0502 | Ham Radio for Dummies, 2nd Edition | **$24.95** |
| ARR-9696 | Two-Way Radios & Scanners for Dummies | **$21.95** |
| ARR-3077 | Radios to Go! Getting the Most from Your Handheld Transceiver | **$15.95** |
| ARR-0659 | Grounding and Bonding for the Radio Amateur | **$22.95** |
| ARR-8314 | Your Introduction to Morse Code | **$12.95** |
| ARR-0163 | Morse Code for Radio Amateurs 12th Ed. | **$15.95** |
| ARR-0976 | Oscilloscopes for Radio Amateurs | **$22.95** |
| ARR-0196 | Electronics for Dummies, 2nd Edition | **$24.95** |
| ARR-0529 | High Speed Multimedia, Amateur Radio | **$24.95** |
| ARR-0277 | Propagation and Radio Science | **$27.95** |

### Software and Digital Modes

| | | |
|---|---|---|
| ARR-0437 | Work the Word with JT65 and JT9 | **$15.95** |
| ARR-6320 | The ABCs of Software Defined Radio | **$19.95** |
| ARR-1431 | VoIP, Internet Linking for Radio Amateurs | **$21.95** |
| ARR-6016 | Get on the Air with HF Digital | **$22.95** |
| ARR-0161 | Arduino for Ham Radio | **$29.95** |
| ARR-7000 | Arduino for Dummies | **$24.95** |
| ARR-8102 | Arduino Projects for Dummies | **$29.95** |
| ARR-0703 | More Arduino Projects for Ham Radio | **$34.95** |
| ARR-1007 | Raspberry Pi Workshop Manual | **$28.95** |
| ARR-2945 | Raspberry Pi for Dummies | **$24.95** |

### EMCOMM and HF

| | | |
|---|---|---|
| ARR-4845 | The Amateur Radio Public Service Handbook | **$21.95** |
| ARR-6153 | Emergency Power for Radio Communications | **$24.95** |
| ARR-8560 | ON4UN's Low Band DXing, 5th Edition | **$44.95** |
| ARR-8826 | RSGB's HF SSB DX Basics | **$15.95** |
| ARR-0038 | RSGB's Radio Propagation Explained | **$19.95** |

### Log Books

Ditch the box-store notepads and log your contacts quickly and accurately. These books have columns for everything you need to record, like date, frequency and mode. The "All-Weather" books are great for EMCOMM and rain-soaked Field Days.

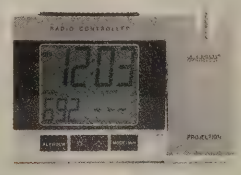
| | | |
|---|---|---|
| ARR-1250 | Station Log Book | **$7.95** |
| ARR-7539 | MINILOG Book | **$4.95** |
| ARR-1374 | All-Weather MINILOG | **$8.95** |
| ARR-5580 | All-Weather ARES Notebook | **$6.95** |
| ARR-6108 | All-Weather Pen | **$13.95** |

DX Engineering guarantees that each study guide reflects the most up to date FCC exam question pools.

LST-WT-8005U-B

LST-WS-8115U-S

LST-WS8117UITOAK


LST-WT5220UITCBP

LST-XG-55

## Wall Clocks

These large, easy-to-read wall clocks are more than mere timepieces; they display weather conditions, the date and even moon phases. Available in several styles, they will look great on almost any wall. Ensure that you're never late for dinner, your job or wedding day again by using a wall clock from La Crosse Technology to stay on schedule.

| | | |
|---|---|---|
| LST-WT-3102S | Analog Clock, White Face, Silver Bezel, 10" Diameter | **$22.95** |
| LST-WT-3129B | Analog Clock, White Face, Black Bezel, 10" Diameter | **$23.95** |
| LST-WT-8005U-B | Wall Clock with Inside Temperature and Date | **$24.95** |
| LST-WS-8115U-S | Atomic Digital Clock with Inside/Outside Temperature | **$26.95** |
| LST-WS8117UITOAK | Digital Clock with Calendar, Temperature, Moon Phase | **$34.95** |

## Desk Clocks

Keep the time and inside/outside temperature on your desk AND your wall with these innovative desk clocks. These self-setting atomic clocks have a traditional display, plus they'll project the time and temperature onto your wall in stunning color. They feature an alarm with a snooze button, making them perfect for the bedroom or your shack. An AC adapter is included.

| | | |
|---|---|---|
| LST-WT5220UITCBP | Desk Clock, Silver Housing | **$35.95** |
| LST-616-146 | Desk Clock, Black Housing | **$39.95** |

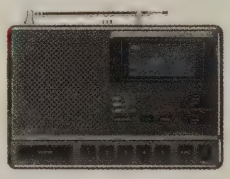
## Digital Altimeter Watch

Carry an altimeter, thermometer, barometer and compass on your wrist! This watch even lets you take bearing readings and gives you accurate weather forecasts. A full chronograph mode includes a stopwatch and counting timer, with memory. The watch is water-resistant to 30 feet and has an electro-luminescent backlight. (Oh, and it tells time, too.)

| | | |
|---|---|---|
| LST-XG-55 | Digital Altimeter Watch | **$69.95** |

## CL-100 Weather Alert Radio

SANGEAN



Keep an ear on the NOAA weather bands with this high-quality desktop radio. It features an Emergency Alert to automatically turn on and warn you of impending weather advisories. The radio is programmable for one-button tuning and has an AM/FM tuner as well. The large LCD screen displays weather alerts and RBDS information.

It's a great bedside radio too, with an alarm clock, snooze button and dimmable display. An AUX jack lets you plug in an external audio device.

| | | |
|---|---|---|
| SGN-CL-100 | Weather Alert Radio | **$69.95** |

LST-809-905

LST-810-106

## Weather Radios

Available in two styles, these radios from La Crosse Technology receive all seven NOAA weather band channels. They also cover the AM/FM broadcast bands, so you can tune in to local news alerts. These radios are essential additions to your emergency kit, car, boat, camping gear and nightstand.

The 809-905 Portable Radio is small enough to slip into your pocket. It has a built-in speaker and features a handy, integrated LED flashlight. The radio runs on 2 AAA batteries, sold separately.

The 810-106 Desktop Radio is powered by an internal lithium ion battery. The battery is recharged either via the built-in hand crank or integrated solar panels. Its bright, backlit LCD display is easy to read when the power goes out.

| | | |
|---|---|---|
| LST-810-106 | Desktop Weather Radio | **$47.95** |
| LST-809-905 | Portable Weather Radio | **$19.95** |

# SANGEAN

## ATS-909X World-Band Portable Radio

As Sangean's flagship line of portable radios, the ATS-909X series has all the elements found in its other models, with extra-cool features like a 42-zone world clock, over 400 memory presets, and an RF-gain control. The stereo radio expanded coverage includes broadcast, longwave, mediumwave, and shortwave bands. For RDS/RBDS broadcasts, the screen displays song and artist information. The separate AUX port allows you to hook up an external MP3 or CD player.

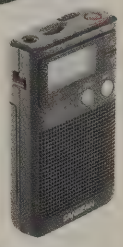
| | | |
|---|---|---|
| SGN-ATS-909XBK | World-Band Portable Radio, Black Finish; | **$269.95** |

## WFR-1 Wi-Fi Table-Top Radio

Conservative estimates pin the current number of Internet radio stations around 15,000. That's a lot of news, comedy and jams. Using your home/office Internet and the WFR-1, you can build your own digital music library by connecting via Wi-Fi or Ethernet. You can also plug in a device via the AUX port or play tunes from a USB flash drive. A handy Line Out jack lets you feed audio to another receiver. An AC adapter is included.

| | | |
|---|---|---|
| SGN-WFR-28 | Wi-Fi Table-Top Radio | **$149.95** |

## DT-200X Pocket Radio



You don't accept compromises in your Ham gear, and you shouldn't accept them in your broadcast radios either. Sangean's Pocket Radio gives you FM/AM broadcast bands with 19 presets and a built-in speaker and clock. The auto turn-off feature will conserve its two AA batteries (not included) and the removable belt clip means this radio doesn't necessarily have to live in your pocket.

| | | |
|---|---|---|
| SGN-DT-200X | Pocket Radio | **$49.95** |

## MMR-77 Emergency Radio

Powered by a hand crank dynamo, this is the ideal radio to keep in your go kit. It's also water resistant, which makes it great for camping. The MMR-77 has a pair of NiMH AAA batteries built in to hold the charge. The radio also runs on AC and battery power. The tuner delivers excellent AM/FM fidelity through the built-in speaker.

| | | |
|---|---|---|
| SGN-MMR-77 | Emergency Radio | **$44.95** |

## Indoor/Outdoor Thermometers

Affordable and accurate tools to measure indoor and outdoor temperatures. They have a wireless outdoor sensor, and can display temperature and humidity. The WS9080UITCBP features a self-setting Atomic clock.

| | | |
|---|---|---|
| LST-WS9245UBKIT | Thermometer, Clock, Min./Max. Temperature | **$16.95** |
| LST-WS9080UITCBP | Thermometer, Clock, Min./Max. Temperature, Atomic Time | **$25.95** |
| LST-WS9009BITCBP | Wireless, 915 MHz, In/Out Temperature, Min./Max. Records | **$15.95** |

LST-WS9080UITCBP

## Outdoor Thermometers

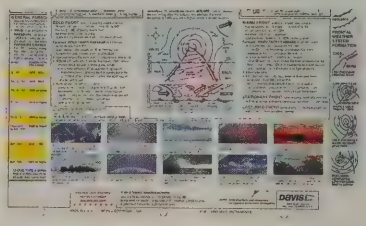
These thermometers and sensors are made to withstand the elements and provide accurate readings for years. They have large, easy to read displays and incorporate several key features. Choose from outdoor standalone units and indoor units with wireless sensors.

| | | |
|---|---|---|
| LST-WT-62U-TBP | Window Thermometer, Indoor/Outdoor Temp | **$11.95** |
| LST-WS6020UITCBP | Thermometer with Wireless Sensor, 5.7" x 3.6" | **$25.95** |
| LST-WS6010UITCBP | Thermometer with Wireless Sensor, 6.1" x 6.3" | **$32.95** |

LST-WS6020UITCBP

# DAVIS Davis Instruments

## Weather Forecasting Quick Reference Cards



This card shows you how to use the information from your fancy weather station. It tells you how to interpret barometric pressure, wind direction, cloud types and more. Get years of meteorology lessons on a single card—perfect for weather-watchers, boaters and Hams.

| | | |
|---|---|---|
| DVI-131 | Weather Forecasting Quick Reference Cards, Set of Two | **$8.99** |

### 24 Hour Wall Clock

Since you're probably logging on 24 hour time (UTC), why not have a clock that gives it to you. As an added bonus, the 12" clock proudly sports the DX Engineering logo. It runs on a single AA battery (not included).

DXE-WALLCLOCK 24 Hour Wall Clock..... **$29.95**

### Professional Weather Stations

LST-C84612

Tailored to the enthusiast, these are powerful and versatile stations. In addition to the standard measurements, these stations let you monitor wind direction/speed, wind chill, dew point and more, depending on the one you choose. There are stations with solar powered sensors, USB connectivity, storm warnings and alarms. Many are compatible with La Crosse Technology's own "Heavy Weather" software. Data storage is non-volatile and the stations transmit wirelessly. Find all the specs on each station at DXEngineering.com.

| | | |
|---|---|---|
| LST-C84612 | Weather Station, Remote Monitor Capability | **$259.95** |
| LST-WS-1517 | Weather Station, 433 MHz Compatible | **$149.95** |
| LST-308-2316 | Weather Station, Wind, Rain, Temp., Forecasting | **$74.95** |

### Wireless Weather Stations

LST-WS-7014CH-IT

LST-308-1425B

Now you can install a weather station without the wiring headaches. Simply set the battery-powered probe outside, and it will wirelessly communicate with the base station inside. Depending on the type of station you select, you'll be able to monitor, record, and track several key weather conditions like temperature, dew point, humidity, barometric pressure and even rainfall. The probes have ranges covering hundreds of feet, visit DXEngineering.com for all the specs.

| | | |
|---|---|---|
| LST-WS-7014CH-IT | Comfort Weather Station, Wood Bezel | **$36.95** |
| LST-WS9160UITCBP | Weather Station, 915 MHz | **$23.95** |
| LST-308A-146 | Weather Station, Color Display | **$47.95** |
| LST-308-1412S | Comfort Weather Station, 433 MHz | **$51.95** |
| LST-308-1425B | Comfort Weather Station, Color Display | **$59.95** |

### Handheld Anemometer

Planning for a DXpedition, Field Day or Hill-Topping? Add accurate weather monitoring tools to your gear and make sure you're ready for Mother Nature. This Anemometer lets you monitor wind speed, wind chill and temperature, plus it's small enough to fit in your pocket.

LST-EA-3010U Handheld Anemometer, Uses CR2032 Lithium Battery..... **$41.95**

### Q-View QSL Card Holders

Knee-deep in QSL cards? Art Sci has the perfect solution to protect, organize and display those hard-earned contacts. You can hang them on your wall or fold the holders neatly for storage.

Each package includes a pair of holders that can fit 20 cards apiece, for a total of 40 cards—rescued off of your bench, nightstand, desk and kitchen table. Select from a standard U.S. postcard size (3.5" x 3.5") or the larger international card size (4" x 6").

| | | |
|---|---|---|
| SIA-QSL-VIEW | Q-View QSL Card Holder, U.S. | **$9.95** |
| SIA-QSL-VIEWINTL | Q-View QSL Card Holder, International | **$9.95** |

### ARES® Apparel

Whether it's just a drill or an actual EMCOMM deployment, outfit your team with official ARRL ARES gear. With a bright safety-yellow fabric and large print, you'll remain visible to other emergency workers and to the community. The proper gear is an absolutely critical component of an EMCOMM station and go kit, so make sure you're ready with official ARRL apparel.

| | | |
|---|---|---|
| ARR-0099 | ARES Deployment Hat | **$14.95** |
| **ARES Deployment Vest** | | |
| ARR-0128-M | Medium | **$15.95** |
| ARR-0128-L | Large | **$15.95** |
| ARR-0128-XLARGE | X-Large | **$15.95** |
| ARR-0128-2XLARGE | 2X-Large | **$15.95** |
| ARR-0128-3XLARGE | 3X-Large | **$15.95** |
| **Pocketed Deployment Vest** | | |
| ARR-0136-M | Medium | **$24.95** |
| ARR-0136-L | Large | **$24.95** |
| ARR-0136-XLARGE | X-Large | **$24.95** |
| ARR-0136-2XLARGE | 2X-Large | **$24.95** |
| ARR-0136-3XLARGE | 3X-Large | **$24.95** |

### Davis Instruments Vantage Pro2 Weather Station

Tailored to the serious sky-watcher, this station uses a wireless, solar-powered sensor array to provide precise weather data. The easy-to-use LCD controller shows graph readouts and forecasting icons. As with many of Davis Instruments' Weather Stations, the Vantage Pro2 is fully expandable with a variety of sensors, wireless repeaters and probes. Find them at DXEngineering.com.

The station gives you precise readouts on wind speed/direction, barometric pressure, temperature, wind chill, relative humidity, rainfall, dew point and more.

DVI-6152 Vantage Pro2 Weather Station..... **$585.00**

### Vantage Vue Weather Station

Get critical weather details on a sleek LCD console. The Vantage Vue Weather Station displays barometric pressure, wind speed/direction, temperature, wind chill, rainfall, dew point and more. It uses a Weather Center function that records conditions over the past 25 days.

This solar-powered wireless sensor uses frequency-hopping spread spectrum radio technology to transmit at distances up to 1,000 feet with updates every 2.5 seconds. The station is compatible with Vantage Pro2 weather stations, so you can mix-and-match components.

DVI-6250 Vantage Vue Weather Station..... **$382.50**

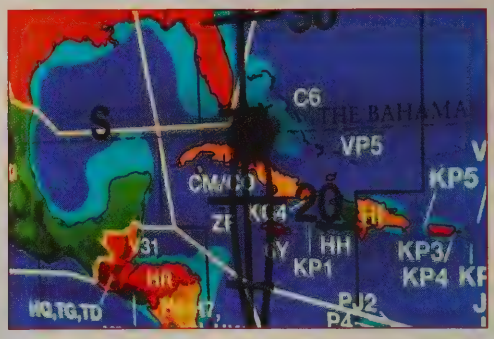
### Mounting Tripod and Pole Kit

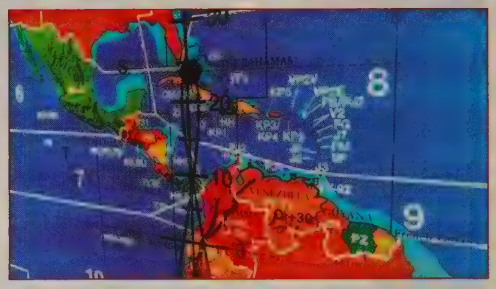
Properly mount your Vantage Pro2, Pro2 Plus, Vantage Vue or other precision weather sensor equipment. The Mounting Tripod features tilting feet for use on uneven terrain (or a sloped roof). Combine the two included poles for an overall height of around 70 inches. The Pole Kit includes two mounting poles that, when combined, provide about 37 inches of overall height. The kit comes with hardware.

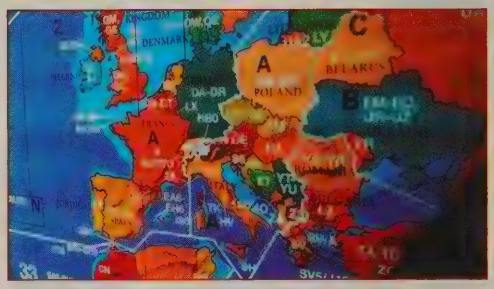
For more accessories and replacement components, please visit DXEngineering.com.

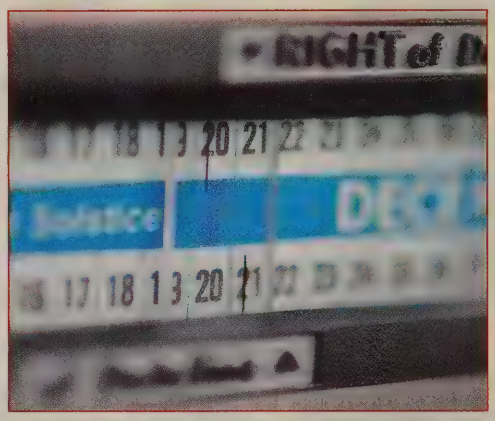
| | | |
|---|---|---|
| DVI-7716 | Mounting Tripod | **$76.50** |
| DVI-7717 | Mounting Pole Kit | **$31.50** |

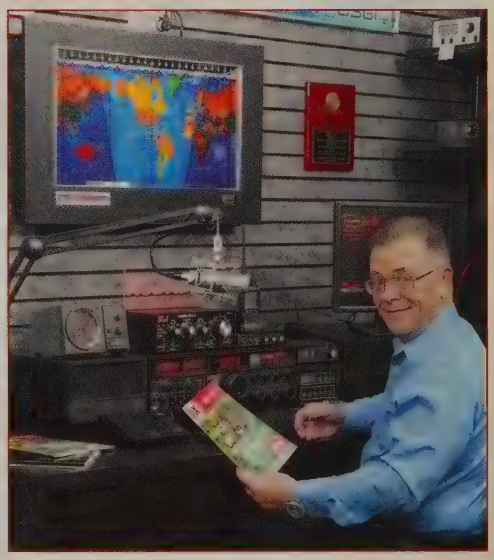
GEO-STD-BLK-HAM



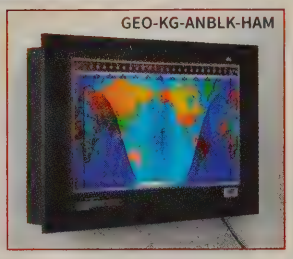








## GEOCHRON® *World Ham Radio Clocks—a DX Engineering Exclusive!*


GEO-KG-ANBLK-HAM

The Geochron® is unique among timepieces in that it displays geography, plus local time (12 and 24 hour formats), Universal Coordinated Time (UTC), sunrise/sunset, all legal time zones, sun movement, daylight duration, and latitude/longitude. The World Ham Radio Clocks are designed with help from the DX Engineering team and they incorporate all of the original Geochron features, plus CQ zones and country prefixes.

Select from the Standard version with a black vinyl finish, or the Special Edition with a black anodized aluminum finish. Each World Ham Radio Clock measures 2 x 3 feet and is powered by standard household 120 Vac/60 Hz AC power (other line voltages available by special order).

GEO-STD-BLK-HAM Standard World Ham Radio Clock..... **$1,899.00**
GEO-KG-ANBLK-HAM Special Edition World Ham Radio Clock..... **$2,495.00**

## GEOCHRON® *Geopolitical and Topographical World Clocks*

Perfect for non-Hams, Geochron's Geopolitical and Topographical World Clocks offer the same beauty and accuracy of the Ham Maps, just with a different mapset.

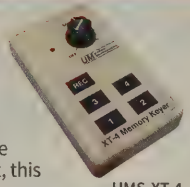
To keep up with the rapidly changing country boundaries, the Geopolitical Maps feature current country borders and demarcation lines.

The Topographical Map shows an Earth view composed from satellite imagery. With the exception of a few of the World's largest cities, the map depicts the Earth (and its oceans) as it appeared a few thousand years ago, before human influence.

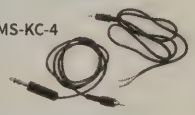
The World Clocks are available as Kilburg and Boardroom models. Though both identical in map size and function, the original Kilburg Model has a traditional border, and the Boardroom model has a larger, more finished edge akin to a fine piece of art. Learn more at DXEngineering.com.

| Part Number | Map Type | Model | Border | Trim | Price |
|---|---|---|---|---|---|
| GEO-G-BRD-CHERRY | Geopolitical | Boardroom | Cherry | Silver | **$2,995.00** |
| GEO-G-BRD-MAH | Geopolitical | Boardroom | Mahogany | Gold | **$2,995.00** |
| GEO-G-BRD-HICK | Geopolitical | Boardroom | Hickory | Silver | **$2,995.00** |
| GEO-G-BRD-OAK | Geopolitical | Boardroom | Black Oak | Silver | **$2,995.00** |
| GEO-G-BRD-ALDER | Geopolitical | Boardroom | Alder | Silver | **$2,995.00** |
| GEO-T-BRD-HICK | Topographical | Boardroom | Hickory | Silver | **$2,995.00** |
| GEO-T-BRD-ALDER | Topographical | Boardroom | Alder | Silver | **$2,995.00** |
| GEO-T-BRD-OAK | Topographical | Boardroom | Black Oak | Silver | **$2,995.00** |
| GEO-T-BRD-CHERRY | Topographical | Boardroom | Cherry | Silver | **$2,995.00** |
| GEO-T-BRD-MAH | Topographical | Boardroom | Mahogany | Gold | **$2,995.00** |
| GEO-KG-GEO-BLK | Geopolitical | Kilburg | Black Vinyl Goatskin | Silver | **$1,995.00** |
| GEO-KG-G-ANBLACK | Geopolitical | Kilburg | Black Anodized | Silver | **$2,495.00** |
| GEO-KG-STAINBR-G | Geopolitical | Kilburg | Brushed Stainless | Silver | **$2,695.00** |
| GEO-KG-TOPO-BLK | Topographical | Kilburg | Black Vinyl Goatskin | Silver | **$1,995.00** |
| GEO-KG-T-ANBLACK | Topographical | Kilburg | Black Anodized | Silver | **$2,495.00** |
| GEO-KG-STAINBR-T | Topographical | Kilburg | Brushed Stainless | Silver | **$2,695.00** |

## UM Unified Microsystems



UMS-XT-4



UMS-KC-4

### XT-4 Memory Keyer

The perfect keyer for Field Day, vacations, EMCOMM or portable operation. Both small and light, this iambic-style keyer is powered by a single 9-volt battery. The XT-4 has four memory channels that can hold 110 Morse characters apiece. Programming is easy and straightforward and it includes a handy reverse function that eliminates the re-wiring hassle. It has an adjustable keyer speed and there is an auto power-off that conserves battery life.

| | | |
|---|---|---|
| UMS-XT-4 | Memory Keyer | **$69.95** |
| UMS-KC-4 | CW Cable Set for XT-4 and VK-64 Keyers | **$9.95** |

## MFJ

### Speech Intelligibility Enhancers

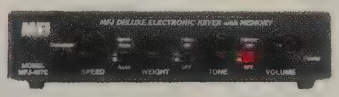
**"As I got older, my high frequency hearing loss was destroying ham radio for me..." Martin F. Jue, K5FLU/ President and Founder of MFJ Enterprises, Inc.**

Developed by Martin Jue to compensate for his hearing loss, this enhancer significantly increases speech energy above 500 Hz where 83% of intelligibility is concentrated. Amateur Radio communications limit audio to about 300 to 2700 Hz. The enhancer splits the audio band into four overlapping octave ranges centered at 300, 600, 1200 and 2400 Hz. You can boost or cut each range by nearly 20 dB to maximize speech intelligibility for most kinds of frequency loss.

Output audio is split into left and right channels with separate 2.5 watt amplifiers; a balance control lets you equalize the perceived loudness to each ear. The enhancer works with SSB, FM, AM, CW or any voice mode on Ham, marine, aircraft and CB bands.

| | | |
|---|---|---|
| MFJ-616 | Speech Intelligibility Enhancer | **$189.95** |
| MFJ-618 | Speech Intelligibility Enhancer, Stereo | **$219.95** |

## MFJ



### MFJ-407E Curtis Deluxe Electronic Keyer

New!

Using cutting-edge microprocessor control, the MFJ-407E gives you iambic key operation and dot-and-dash memory to help you send perfect code. You can adjust code speed, weight and side tone frequency, plus this keyer is compatible with your key, and single or dual paddle.

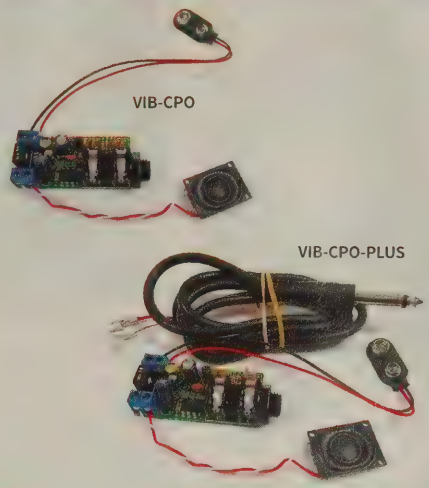
| | | |
|---|---|---|
| MFJ-407E | Curtis Deluxe Electronic Keyer | **$99.95** |

## MFJ

### MFJ-464 CW Keyer/Reader

Build your ultimate CW station. You can send CW or load messages with your paddle, keyboard or your computer's serial port. The MFJ-464's AutoTrak feature locks on, tracks and displays CW up to 99 WPM. Using this keyer is easy, thanks to its large LCD screen, intuitive interface and internal speaker. You can repeat messages, adjust from normal to Farnsworth spacing, insert pauses and even embed commands to automatically change weight or speed.

| | | |
|---|---|---|
| MFJ-464 | CW Keyer/Reader Unit | **$189.95** |



VIB-CPO

VIB-CPO-PLUS

## VIBROPLEX

### Code Practice Oscillator Kits

Comprised of a small PCB and speaker, these kits let you practice code using your own key or paddle for a real tactile CW experience. The units generate a pleasant 700 Hz tone and are powered by a single 9V battery. They're the perfect choice for clubs that hold regular CW classes.

| | | |
|---|---|---|
| VIB-CPO | Practice Oscillator Kit | **$24.95** |
| VIB-CPO-PLUS | Practice Oscillator Kit, with Key Hookup Cable | **$29.95** |

## Palstar

### CW50A Electronic Keyer

The Palstar CW50A Electronic Keyer has a speed control adjustable from 10 to 40 WPM, crystal-controlled for high accuracy. You can easily flip from mode A to mode B iambic keying and the built-in sidetone generator and speaker make monitoring your transmission easy. The CW50A also doubles as a training unit. Character spacing and dash weight are adjustable, as well.

The Palstar CW50A Electronic Keyer works with any straight key, semi-automatic bug key, single lever paddles and iambic dual lever "squeeze" paddles. Plus, it's compatible with both tube and solid state rigs. You can hook up your paddle through a convenient front panel jack, and there's a separate jack for your straight key—allowing for two keys to be attached at the same time. Read more details at DXEngineering.com.

- Sidetone pitch: 500-1000 Hz, front panel adjustable
- Keying output: positive, negative and high-speed reed relay
- Operating current: 10-50 mA, depending on sidetone level

| | | |
|---|---|---|
| PAS-CW50A | Palstar Electronic Keyer | **$179.95** |

## MFJ

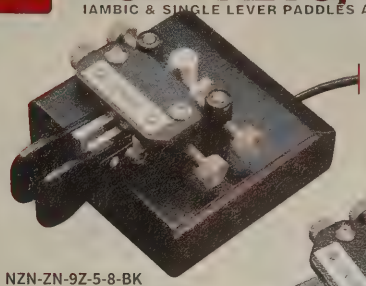
### MFJ-495 Millennium CW Memory Keyer

With the MFJ-495, you get a feature-laden keyer with dual microprocessors and nonvolatile EEPROM chip for excellent reliability. You can key in CW with your paddle, keyboard or through a computer serial port. MFJ-495's battery backed-up memory allows you to store messages and settings. This user-friendly keyer also features an internal speaker and simple interface, which makes it easy to set up and start sending CW.

| | | |
|---|---|---|
| MFJ-495 | Millennium CW Memory Keyer | **$169.95** |

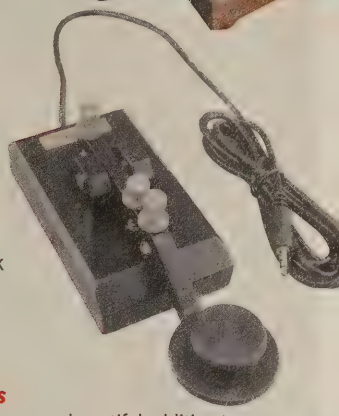
## N3ZN KEYS, LLC

IAMBIC & SINGLE LEVER PADDLES AND KEYS



NZN-ZN-9Z-5-8-BK

NZN-ZN-QRP-1-2IM



NZN-ZN-HK-BKBK

### Paddles and Keys

N3ZN Paddles and Keys are a beautiful addition to your CW arsenal. Each one is precision manufactured to the strictest tolerances, using high-quality materials like solid silver, Lexan® Polycarbonate and stainless steel. Their action is smooth and reliable; electrical response crisp and clear. Heavy brass bases with non-skid feet keep them firmly planted on your desk.

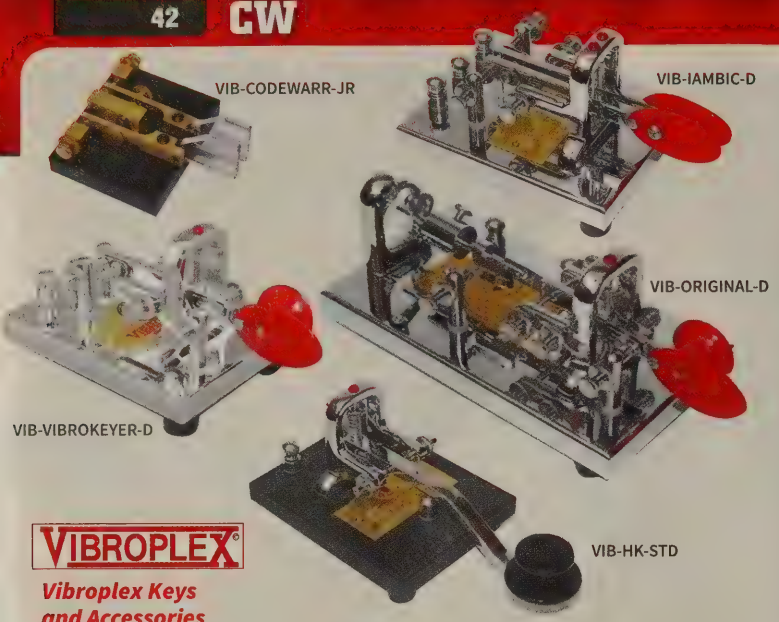
Use keyword N3ZN at DXEngineering.com to see exact specs on each one. **From $314.95-$364.95**

| Part Number | Type | Paddle Spacing | Base Finish |
|---|---|---|---|
| NZN-ZN-9-1-2-BK | ZN-9 Iambic Key | 0.500" | Black |
| NZN-ZN-9-3-4-BK | ZN-9 Iambic Key | 0.750" | Black |
| NZN-ZN-9Z-5-8-BK | ZN-9Z Iambic Key | 0.625" | Black |
| NZN-ZN-9Z-5-8-IM | ZN-9Z Iambic Key | 0.625" | IRONMAN V |
| NZN-ZN-QRP-1-2BK | ZN-QRP Iambic Key | 0.500" | Black |
| NZN-ZN-QRP-1-2IM | ZN-QRP Iambic Key | 0.500" | IRONMAN V |
| NZN-ZN-SL-BKCFIM | ZN-SL Single Paddle Key | | IRONMAN V |
| NZN-ZN-HK-BKBK | ZN-HK Straight Key | | Black |

### A Clean Key is a Happy Key.

Your key or paddle relies on spotless electrical contacts to create a crisp, clear tone. More importantly, dust, grit and the occasional cookie crumb can interfere with the key's precise mechanical movement to make it frustrating to operate CW. Keep your gear in tip-top shape with high quality cleaning solutions from CAIG and Techspray. (That way, you won't have to adjust your cookie intake!)

| | | |
|---|---|---|
| TSY-1671-10S | Electronic Dust Spray | **$15.95** |
| CAG-D100L-P6C | Precision Oiler | **$19.95** |
| CAG-D5S-6 | DeoxIT® D5 Spray | **$19.95** |
| CAG-DCC-V510 | Contact Cleaner Wash | **$9.95** |




VIBROPLEX®

### Vibroplex Keys and Accessories

Vibroplex has been a leading manufacturer of quality CW keys and amateur radio accessories for over 100 years. From the Original Bug (in continuous production since 1905) to the always-reliable straight key, we have a wide selection of Vibroplex models to choose from. Over 300,000 Vibroplex keys are in circulation today because of their durability and unwavering performance.

**Keys**

| | | |
|---|---|---|
| VIB-BLRACER-STD | Blue Racer | $232.95 |
| VIB-CODEWARR-JR | Black Code Warrior Jr. | $109.95 |
| VIB-IAMBIC-S | Iambic Paddle Standard | $171.95 |
| VIB-IAMBIC-D | Iambic Paddle Deluxe | $211.95 |
| VIB-IAMBIC-P | Iambic Paddle Presentation | $299.95 |
| VIB-IAMBIC-G | Iambic Paddle Gold | $322.95 |
| VIB-VIBROKEYER-S | Vibrokeyer Single Paddle Standard | $171.95 |
| VIB-VIBROKEYER-D | Vibrokeyer Single Paddle Deluxe | $211.95 |
| VIB-VIBROKEYER-G | Vibrokeyer Single Paddle Gold | $322.95 |
| VIB-ORIGINAL-S | Original Bug Standard | $211.95 |
| VIB-ORIGINAL-D | Original Bug Deluxe | $272.95 |
| VIB-ORIGINAL-P | Original Bug Presentation | $353.95 |
| VIB-ORIGINAL-G | Original Bug Gold | $393.95 |
| VIB-HK-STD | Straight Key Standard | $171.95 |
| VIB-HK-DELUXE | Straight Key Deluxe Chrome | $211.95 |
| VIB-HK-GOLD | Straight Key Gold | $322.95 |

**Accessories**

| | | |
|---|---|---|
| VIB-DC-VIBRO | Dust Cover for HK/Iambic/Vibrokeyer | $34.95 |
| VIB-DC-ORIG | Dust Cover for Original Bug | $35.95 |
| VIB-DC-RACER | Dust Cover for Racer | $29.95 |
| VIB-DC-BY | Dust Cover for Bencher BY Series | $35.95 |
| VIB-405-CCS | Contact Cleaner Abrasive Strip | $5.95 |
| VIB-CP-2 | 2-Conductor Cable 1/4" Plug (Bug or Hand Key) | $9.95 |
| VIB-CP-3 | 3-Conductor Cable 1/4" Plug (Paddles) | $9.95 |
| VIB-CP-3-3-5MM | 3-Conductor Cable 3.5mm Plug (Paddles) | $9.95 |
| VIB-COFFEMUG | Vibroplex Coffee Mug | $8.95 |

VIB-DC-VIBRO

VIB-COFFEMUG

VIB-CP-2

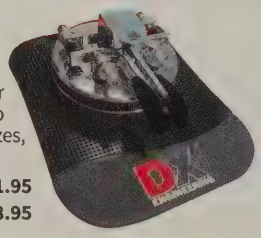
DX ENGINEERING

### PaddlePads

Save your wrist during those marathon contests and work long hours of DX without strain. DX Engineering's washable PaddlePads are a CW operator's best friends. They keep your key from sliding around on your desk and allow your wrist to stay at a comfortable angle. The PaddlePads come in two sizes, find the right one for your key at DXEngineering.com.

| | | |
|---|---|---|
| DXE-PADDLEPAD-L | PaddlePad, Large, 5.9" x 7.5" | $11.95 |
| DXE-PADDLEPAD-S | PaddlePad, Small, 3.8" x 8.9" | $8.95 |

**Shown with key. Not included.**



KENT KMK
KENT MORSE KEYS GERMANY

KMK-KT-1

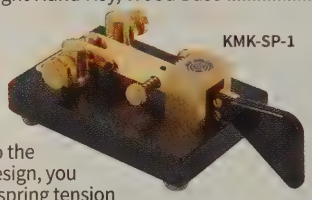
### Straight Keys

Engineered to the strictest standards, these Kent Keys are precision-machined from solid brass. They feature silver plated contacts and ball race bearings for tight and smooth operation. You can easily fine-tune these keys by using the knurled-head adjustment screws.

You can select from the SK-1 Key, with a beautifully finished wood base, or the KT-1 Key, with a steel base and a sleek black finish.

| | | |
|---|---|---|
| KMK-KT-1 | KT-1 Hand Key, Black Steel Base | $174.95 |
| KMK-SK-1 | Straight Hand Key, Wood Base | $154.95 |

### Single and Double Paddle Keys


KMK-SP-1

KENT KMK
KENT MORSE KEYS GERMANY

Made with versatility in mind, these keys can be adjusted to your precise operating style. Thanks to the paddles' unique spring design, you can change left and right spring tension separately. Adjustment is easy, with large knurled screws.

Like all Kent Keys, the mechanisms are machined from solid brass and use a quality ball race bearing. A heavy steel base keeps the paddles stable and the intuitive gap settings ensure a positive "feel."

| | | |
|---|---|---|
| KMK-SP-1 | Single Paddle Key | $159.95 |
| KMK-TP1-B | Twin Paddle Key | $164.95 |

KMK-TP1-B

VIB-VIBROCUBE-D

VIB-VIBROCUBE-S

VIBROPLEX®

### Vibrocube

How many times have you had to reposition your paddles after a few minutes of use? Smaller, lightweight paddles can slide around your table, causing frustration and aggravating delays. Vibroplex tackles this problem head-on with the Vibrocube. These heavy-duty paddles tip the scales at over six pounds. They're made of steel, zinc and brass for a durable and stable iambic paddle—ideal for the enthusiastic CW user.

| | | |
|---|---|---|
| VIB-VIBROCUBE-D | Vibrocube Deluxe | $299.95 |
| VIB-VIBROCUBE-SU | Vibrocube Standard Upgraded | $229.95 |
| VIB-VIBROCUBE-S | Vibrocube Standard | $199.95 |

BENCHER, INC.

BNR-BY-2

BNR-ST-1

### Keys and Accessories

Equip your station with high-performance Bencher keys and accessories. All Bencher products are fabricated and assembled in the USA by skilled professionals, using the finest materials for superior performance and durability.

**Keys**

| | | |
|---|---|---|
| BNR-RJ-1 | Hand Key, Black Base | $159.95 |
| BNR-RJ-2 | Hand Key, Chrome Base | $189.95 |
| BNR-BY-1 | Iambic Paddle, Black Base/Chrome Parts | $171.95 |
| BNR-BY-2 | Iambic Paddle, Chrome Base/Chrome Parts | $211.95 |
| BNR-170-82 | Mercury Paddle, Chrome Base/Chrome Parts, Shown with PaddlePad on Right | $524.95 |
| BNR-ST-1 | Single Lever Paddle, Black Base/Chrome Parts | $146.95 |
| BNR-ST-2 | Single Lever Paddle, Chrome Base/Chrome Parts | $176.95 |

**Accessories**

| | | |
|---|---|---|
| BNR-EZ-1 | 4" Hook-up Cable, 1/8" and 1/4" Plugs | $12.95 |
| BNR-DC-RJ | Cover for RJ-Series Keys | $34.95 |
| VIB-DC-BY | Cover for BY-Series Paddles | $35.95 |

### Keyer Cables

Use these to connect your MFJ Keyer to your radio. The cables have an RCA phono plug on one end and a 3.5mm (with included 1/4" adapter) plug on the other.

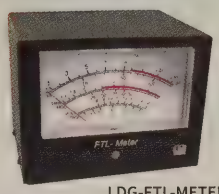
| | | |
|---|---|---|
| MFJ-5164 | Keyer Cable, 6' | $11.95 |
| MFJ-5166 | Keyer Cable, 3' | $11.95 |

MFJ

LDG ELECTRONICS

LDG-FT-METER

### Multi-Function Meters for Yaesu 857/897 Transceiver


LDG-FTL-METER

These 7-function meters are the perfect complement to your Yaesu radio. On the receive end, they'll display signal strength, discriminator or voltage. For transmit, the meters will display RF power, SWR, modulation, ALC or voltage.

| | | |
|---|---|---|
| LDG-FTL-METER | Multi-Function Meter for Yaesu, 4.5" Display | $89.95 |
| LDG-FT-METER | Multi-Function Meter for Yaesu, 2.5" Display | $59.95 |

LDG ELECTRONICS

LDG-M-1000

### Meters for LDG Remote Antenna Tuners

LDG-M-600

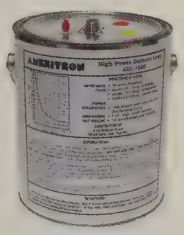
To get accurate metering of your AT100ProII or AT600ProII Tuners, LDG offers these intuitive multi-function meters. They can display forward/reflected power and SWR. Each meter also has peak hold and average power modes. Plus, if your ProII Tuner is nearby, then you can set these meters to display a different reading than the tuner's built-in bar graph LED, giving you two different meter options.

The M-1000 has 0-100 and 0-1,000 watt power ranges and is tailored to the AT-1000ProII tuner, while the M-600 has 0-100 and 0-600 watt power ranges and is designed for the AT-600ProII tuner.

| | | |
|---|---|---|
| LDG-M-1000 | Meter for AT-1000ProII | $129.95 |
| LDG-M-600 | Meter for AT-600ProII | $129.95 |

AMERITRON

AME-ADL-2500


AME-ADL-1500

### ADL-1500

**Oil-Filled Dummy Load, 1,500 Watts**

- 7 1/2" H x 6 5/8" D
- SWR under 1.2:1 to 30 MHz and low SWR to 400 MHz

AME-ADL-1500 Dummy Load, 1,500 Watts ..... $74.95

### ADL-2500

**Fan-Cooled Dummy Load, 2,500 Watts**

- SWR under 1.25:1 below 30 MHz and under 1.4:1 from 30 to 60 MHz
- 4" H x 8 1/4" D

AME-ADL-2500 Dummy Load, 2,500 Watts ..... $219.95

DIAMOND ANTENNA

### Diamond Compact Dummy Loads

| | | |
|---|---|---|
| DMN-DL30A | Compact Dummy Load, 15 W Avg./100 W Peak, DC-500 MHz, PL-259 | $39.95 |
| DMN-DL30N | Compact Dummy Load, 15 W Avg./100 W Peak, DC-500 MHz, Type N Connector | $54.95 |

Coaxial Dynamics
A CDI INDUSTRIES, INC. COMPANY
SPECIALISTS IN RF TEST EQUIPMENT & COMPONENTS

CXD-81000-ANF

CXD-81000-AUF

### RF Directional Wattmeters

Once only available to broadcast engineers, wireless network designers and communications professionals, now you can get these high-precision Coaxial Dynamics meters for your own station. Simply connect the meter between your RF power source and your antenna (or dummy load), and with a few minor adjustments you'll be able to measure forward or reflected power.

Each meter requires plug-in elements to choose or expand the power and frequency range you want to measure, available at DXEngineering.com.

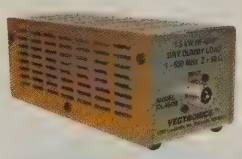
The meters are shock-mounted in a virtually indestructible chassis, making them well suited to the field. For extra protection, check out the Carrying Case. It is made specifically for the 81000 series meters, with room to fit four additional connectors and 11 separate plug-in elements.

| | | |
|---|---|---|
| CXD-81000-ANF | RF Directional Wattmeter, N Female Connectors | $309.00 |
| CXD-81000-AUF | RF Directional Wattmeter, SO-239 Connectors | $309.00 |
| CXD-88800 | Carrying Case | $80.00 |

### Coaxial Dynamics Standard Plug-In Elements

Expand the versatility of your Coaxial Dynamics or Bird Directional Wattmeter by using additional Plug-In Elements. They assure a super accurate measurement for your station power and antenna performance. Coaxial Dynamics' 7/8 inch line size standardization means these elements are completely interchangeable, whether the element is brand new, or if it were made decades ago.

Elements are available at DXEngineering.com.


VEC-DL650M

VEC-DL-2500

VECTRONICS ...World Class Quality

### Dummy Loads

- Air-Cooled
- 1,500 Watts, 0-650 MHz
- SWR under 1.3:1 at DC-300 MHz, under 1.5:1 at 300-500 MHz, under 2.0:1 at 650-1000 MHz

VEC-DL650M Dummy Load, 1,500 Watts ..... $79.95

- Fan-Cooled
- 2,500 Watts, 0-150 MHz
- SWR under 1.31 to 30 MHz

VEC-DL-2500 Dummy Load, 2,500 Watts ..... $219.95

Coaxial Dynamics
A CDI INDUSTRIES, INC. COMPANY
SPECIALISTS IN RF TEST EQUIPMENT & COMPONENTS

CXD-83000-ANF

CXD-83000-AUF

### RF Peak Reading Wattmeters

These meters are designed to read RF power in PEP watts, which is useful in measuring SSB, DSB and AM signals. They're similar to a standard wattmeter, yet can change from average to peak readings with a flip of a switch. These meters are built to the high standards Coaxial Dynamics is famous for, and deliver the bulletproof accuracy that wireless communications professionals demand.

The meters use the plug-in elements to define the power and frequency range you want to measure. Each meter requires a single 9-volt battery.

| | | |
|---|---|---|
| CXD-83000-ANF | RF Peak Reading Wattmeter, N Female Connectors | $450.00 |
| CXD-83000-AUF | RF Peak Reading Wattmeter, SO-239 Connectors | $450.00 |

MFJ

MFJ-267

MFJ-264

MFJ-264N

MFJ-260C

### MFJ-267

**Air-Cooled Dummy Load and Wattmeter, 1,500 Watts**

- SWR under 1.3:1 at 30 MHz
- Built-in wattmeter can be used independently

MFJ-267 Dummy Load/Wattmeter ..... $149.95

### MFJ-264

**Air-Cooled Dummy Load, 1,500 Watts (SO-239)**

- SWR under 1.1:1 at 30 MHz and 1.3:1 at 30-650 MHz

MFJ-264 Dummy Load, 1,500 Watts ..... $74.95

### MFJ-264N

**Air-Cooled Dummy Load, 1,500 Watts (N Connector)**

- SWR under 1.1:1 at 30 MHz and 1.3:1 at 30-650 MHz

MFJ-264N Dummy Load, 1,500 Watts ..... $84.95

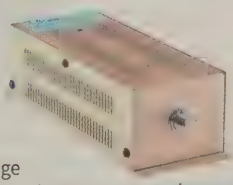
### MFJ-260C

**Air-Cooled Dummy Load, 300 Watts**

- SWR under 1.1:1 to 30 MHz and 1.5:1 at 30-650 MHz

MFJ-260C Dummy Load, 300 Watts ..... $39.95

Palstar



### PAS-DL1500

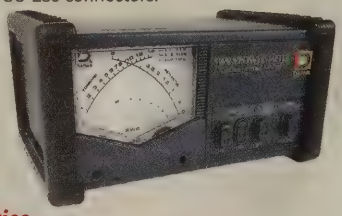
**Air-Cooled Dummy Load, 1,500 Watts**

- 0-500 MHz frequency range

PAS-DL1500 Dummy Load, 1,500 Watts ..... $189.95

Daiwa meters deliver high quality at a value price, making them ideal for both serious contesters and casual ragchewers alike. The cross-needle meters display SWR, power output and reflected power. Each meter uses 13.8 Vdc and has SO-239 connectors.

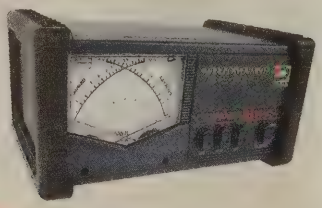
DAIWA



### 1,500 Watt Economy Series HF/VHF Bench Meter

The CN-501H covers 1.8-200 MHz with 15/150/1,500 watt min./mid./max. power ranges.

DWA-CN-501H 1,500 Watt Economy Series HF/VHF Bench Meter..... **$105.95**



### 200 Watt Economy Series HF/VHF Bench Meter

The CN-501V covers 140-525 MHz with 20/200 watt min./max. power ranges.

DWA-CN-501V 200 Watt Economy Series HF/VHF Bench Meter..... **$105.95**

### 3,000 Watt Professional Series Bench Meter

The CN-901HP3 covers 1.8-200 MHz with 30/300/3,000 watt min./mid./max. power ranges.

DWA-CN-901HP3 3,000 Watt Professional Series Bench Meter..... **$205.95**

### 2,000 Watt Professional Series Bench Meter

The CN-901HP covers 1.8-200 MHz with 20/200/2,000 watt min./mid./max. power ranges.

DWA-CN-901HP 2,000 Watt Professional Series Bench Meter..... **$165.95**

### 200 Watt Professional Series Bench Meters

The CN-901V covers 140-525 MHz with 20/200 watt min./max. power ranges.

DWA-CN-901V 200 Watt Professional Series Bench Meter .....**$155.95**

MFJ

### Digital SWR/Wattmeter

This meter's intuitive bar graph display combines digital accuracy with the easy readability of an analog meter. Use this meter to display power, SWR and frequency simultaneously. There's also an adjustable alarm to alert you to dangerous SWR levels. It covers 1.8-54 MHz with 25/250/1,500 watt min./mid./max. power ranges.

MFJ-826B Digital SWR/Wattmeter..... **$179.95**

DIAMOND ANTENNA

DMN-SX20C

### SX20C and SX40C 300 Watt Mobile Power Meters

These compact meters work well in mobile rigs or shacks that are short on space. Their cross-needle displays indicate SWR and power output simultaneously. They both feature 30/300 watt min./max. power ranges. The SX20C covers the 3.5-30/50-54/130-150 MHz bands, while the SX40C covers 144-470 MHz.

DMN-SX20C SX20C Mobile Power Meter, HF-VHF ..... **$92.95**

DMN-SX40C SX40C Mobile Power Meter, 2M-70cm ..... **$82.95**

### SX100 3,000 Watt Power Meter

The SX100 measures both forward/reflected power and SWR. It covers 1.6-60 MHz with 30/300/3,000 watt min./mid./max. power ranges.

DMN-SX100 SX100 Power Meter..... **$124.95**

### SX200 200 Watt Power Meter

With a 4 watt minimum of testing power, this compact meter is perfect for testing 2M HT or base stations. It covers 1.8-200 MHz with 5/20/200 watt min./mid./max. power ranges.

DMN-SX200 SX200 Power Meter..... **$89.95**

### SX400 200 Watt Power Meter

Designed for VHF and UHF, this compact meter is perfect for mobile or base installations. It covers 140-525 MHz with 5/20/200 watt min./mid./max. power ranges.

DMN-SX400 SX400 Power Meter..... **$109.95**

### SX600 Dual Power Meter

Instantly switch from metering one of two directional couplers. For low-band/VHF rigs there's a 1.8-160 MHz coupler and for VHF/UHF rigs, there's a 140-525 MHz coupler. Plus, the couplers are separate, which means you can keep both rigs plugged in all the time. The SX600 has 5/20/200 watt min./mid./max. power ranges.

DMN-SX600 SX600 Dual Power Meter..... **$179.95**

### SX1100 Dual Power Meter

The ideal meter if you're operating on the 33cm and 23cm bands. Similar to the SX600, this meter has two separate couplers: one covers 1.8-160 MHz while the other UHF coupler covers 430-1300 MHz. The three UHF bands are selectable for 430-450, 800-930 and 1240-1300 MHz. The SX1100 has 5/20/200 watt min./mid./max. power ranges.

DMN-SX1100 SX1100 Dual Power Meter..... **$262.95**

PAS-DL2K

PAS-PM2000A

Palstar

PAS-PM2000AM

### Wattmeters and Dummy Load

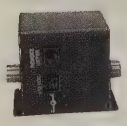
These hyper-accurate meters measure and display SWR, forward power and reflected power simultaneously. They'll also monitor average power, and their handy "Peak Hold" buttons make it easy to record peak power. The meters cover 1.8-60 MHz with 300/2,000 watt min./max. power ranges. For mobile use, the more compact PM2000AM includes a mounting bracket.

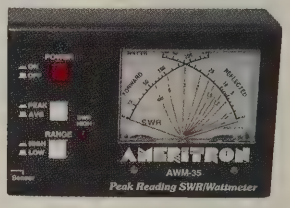
The PAS-DL2K is a fan-cooled dummy load with a built-in wattmeter. It covers 0-30 MHz.

PAS-PM2000A Wattmeter, 2,000 Watts.....**$189.95**

PAS-PM2000AM Mobile Wattmeter, 2,000 Watts .....**$189.95**

PAS-DL2K Dummy Load/ Wattmeter, 2,000 Watts.....**$379.95**






AMERITRON

### Flat Mount Mobile SWR/Wattmeter

Designed for easy installation in most vehicles, this dashboard mount meter covers 1.8-30 MHz. An LED illuminated cross-needle meter improves visibility, even at night. It is powered via 9-volt battery or any 12 Vdc power source. A remote sensor is included.

AME-AWM-35BH Flat Mount Mobile SWR/Wattmeter.....**$159.95**

### Get Wired.

Adding a meter or other in-line component means you'll probably need a short section of "jumper" coaxial cable. But cobbling one together from scrap cable and connectors found around your shack could compromise station performance.

DX Engineering offers several professionally-made, low-loss cable assembles in short, 3 foot lengths. Just choose your connector and cable type, and you're ready to go. Check out the Cable section in the back of this catalog.

### ALS-600 & ALS-600S Solid State Linear Amplifiers

**ALS-600 Solid State Linear Amplifier**

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output:
  - 600 watts PEP
  - 500 watts CE
- (4) rugged TMOS RF power FETs
- Quiet, low-speed, low-volume fan
- Includes 120/220 Vac 50/60 Hz power supply
- Illuminated cross-needle SWR/wattmeter
- Instant bandswitching, no tuning required
- Rugged linear power supply

AME-ALS-600 Solid State Linear Amplifier .... **$1,999.95**

**ALS-600S Solid State Linear Amplifier**

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output:
  - 600 watts PEP
  - 500 watts CE
- (4) rugged TMOS RF power FETs
- Includes lightweight switching power supply
- Illuminated cross-needle SWR/wattmeter
- Quiet, low-speed, low-volume fan
- Instant bandswitching, no tuning required
- Lightweight switching power supply

AME-ALS-600S Solid State Linear Amplifier... **$1,899.95**

### ALS-606 Series Amplifiers

New!

- Coverage: HF plus 6 Meters
- Power output:
  - 600 watts PEP
  - 500 watts CW
- TMOS RF power FETs
- Quiet, low-speed, low-volume fan
- Includes power supply
  - Linear (ALS-606)
  - Switching (ALS-606S)
- Illuminated cross-needle SWR/wattmeter
- Automatic band switching with DB Series band data cable; sold separately, see the table in the right hand column.

AME-ALS-606 Amp with Linear Supply **$2,374.95**

AME-ALS-606S Amp with Switching Supply..... **$2,274.95**

AMERITRON®

### AL-80B Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 1,000 watts PEP SSB
  - 800 watts CW
  - 500 watts RTTY, SSTV, FM and AM
- Tube: (1) genuine, warrantied 3-500ZG transmitting tube
- Two illuminated cross-needle meters
- In-rush current protection
- Multi-voltage power transformer

AME-AL-80B Linear Amplifier..... **$1,429.95**

### AL-811H Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 800 watts PEP SSB
  - 600 watts CW
  - 400+ watts RTTY, SSTV, FM and AM
- Tube complement: (4) rugged, neutralized 811A transmitting tubes
- Two illuminated cross-needle meters
- Transmit LED
- Operate/Standby switch

AME-AL-811H Linear Amplifier..... **$889.95**

AME-AL-811HXCE* Linear Amplifier, CE-Certified ..... **$1,048.95**

***Export Only.**

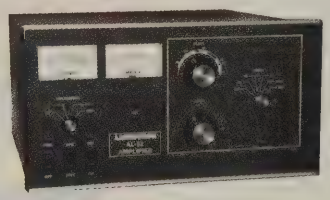
### AL-811 Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 600 watts PEP SSB
  - 500 watts CW
  - 400 watts RTTY, SSTV, FM and AM
- Tube complement: (3) rugged, neutralized 811A transmitting tubes

AME-AL-811 Linear Amplifier..... **$759.95**

AME-AL-811XCE* Linear Amplifier, CE-Certified... **$898.95**

***Export Only.**



### AL-82 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,800 watts continuous
  - 1,500 watts RTTY, CW (70% plate efficiency)
  - 1,500 watts PEP, SSB, SSTV (low distortion)
- Two illuminated, selectable meters
- In-rush current protection
- Factory-wired for 240 Vac, 50/60 Hz

AME-AL-82 Linear Amplifier..... **$2,729.95**

### AL-1200 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,500 watts
  - 2,500+ watts (PEP two tone for 1/2 hour)
- Two illuminated, selectable meters
- Forced air cooling system
- Factory-wired for 240 Vac, 50/60 Hz

AME-AL-1200 Linear Amplifier..... **$4,194.95**

### AL-1500 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,500 watts (1/2 hour continuous carrier)
  - 2,500 watts (30 second continuous carrier)
- Two illuminated, selectable meters
- In-rush current protection
- Multi-voltage power transformer
- QSK-compatible

AME-AL-1500 Linear Amplifier..... **$3,799.95**

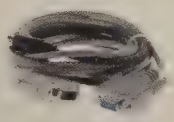
AMERITRON®

### ALS-1306 HF Power Amplifier

- Coverage: all HF bands (1.5-54 MHz)
- Power output: 1,200 watts PEP
- Eight RF TMOS MRF-150 FETs
- 120/240 Vac compatible
- Built-in amplifier keying with optional cable
- Instant bandswitching—no tuning needed
- Auxiliary 12 Vdc output for extra devices

AME-ALS-1306 HF Power Amplifier..... **$2,999.95**

AME-DB-DB7DK



AME-DB-DB8MK

### ALS-1306 Band Data Interface Cables

Take advantage of the automatic band changing capability of Ameritron's ALS-1306 HF Power Amplifier or RSC-12C Remote Antenna Switch. You'll need the right cable to properly connect your radio, see the table below for options and find specific radio applications at DXEngineering.com.

| Part Number | Radio Brand | Description | Price |
|---|---|---|---|
| AME-DB-DB15HE | Elecraft | K3 ACC DB15 | $24.95 |
| AME-DB-7DI | Icom | 7-pin DIN ACC 2 | $22.95 |
| AME-DB-13D | Icom | 13-pin DIN ACC | $22.95 |
| AME-DB-DB7DK | Kenwood | 7-pin DIN and RS232 | $24.95 |
| AME-DB-DB8MK | Kenwood | TS-480SAT/HX | $24.95 |
| AME-DB-8DY | Yaesu | 8-pin DIN Band Data | $22.95 |
| AME-DB-8MY2 | Yaesu | 8-pin mini-DIN | $24.95 |
| AME-DB-10MY | Yaesu | FT-450,-950, -DX1200 | $24.95 |
| AME-DB-DB15Y | Yaesu | FT-DX3000 | $24.95 |

### ALS-1300 Solid State HF Amplifier

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output:
  - 1,200 watts SSB
- (8) rugged MRF-150 power FETs
- Front panel ALC control
- Illuminated cross-needle SWR/wattmeter
- Operate/Standby switch
- Instant bandswitching, no tuning required
- Lightweight switching power supply

AME-ALS-1300 Solid State Linear Amplifier ... **$2,399.95**

ACOM

### *1,500 Watt Automatic HF Linear Amplifier*

This is the first Amateur Radio HF amplifier to combine fully automatic tuning and sophisticated digital control capabilities. Using a revolutionary new amplifier design, the 2000A delivers up to 1,500 watts of clean, noise-free power. Full automatic tuning gives contesters an edge, by permitting lightning-quick bandswitching with exceptionally low SWR. Advanced digital features provide full control via PC when plugged into the 2000A's RS232 port. An optional module lets you turn the amplifier on and off remotely.

AOM-2000A 1,500 Watt Automatic HF Linear Amplifier ..... **$6,499.95**

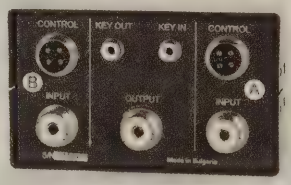
AOM-RPON Remote Power On Module for 2000A ..... **$165.95**

**Remote Control Unit**

This is the exact same remote control unit that comes with ACOM's 2000 amplifier. The unit lets you install the amplifier away from your desk and free up space in your shack. You can control all of the amplifier's functions and monitor critical parameters on the large LCD display.

AOM-RCU-TFT Remote Control Unit ..... **$799.95**

ACOM




### *Automatic XCVR Commutator*

The 2S1 lets two transceivers use a common load, preventing the radios from transmitting at the same time; but allowing simultaneous reception. It was designed specifically to link ACOM's 2000S/SW antenna selector with its A2000 HF linear amplifier, but it can be adapted for other applications. It's fully automatic and supports full break-in.

AOM-2S1 Automatic XCVR Commutator ..... **$268.95**

ACOM *New!*

### *ATU04AT Automatic Antenna Tuner*

Powered and controlled by ACOM's solid state HF+6M amplifiers, this antenna tuner delivers automatic and manual tuning to ensure the proper impedance match between radio and amplifier. Full tuning is completely automatic, and tuning patterns can be stored in its nonvolatile memory (or transferred to a PC for future use). Tuner information is displayed on the amplifier's screen for easy use. It has built-in voltage, power, and hot-switching protection, and the unit can be mounted indoors or outdoors.

AOM-04AT ATU04AT Automatic Antenna Tuner ..... **$1,199.95**

ACOM

### *1,500 Watt HF+6M Linear Amplifier*

It's more than just a pretty face; the A1500 covers all the HF bands and 6 meters with incredibly low distortion and noise figures. Large, smooth knobs combine with a sleek LCD screen to make adjustments easy and quick. The A1500 boasts three antenna outputs and nearly silent input bypass and antenna relays. Diagnostic data is stored in one of seven nonvolatile memory banks.

AOM-1500 1,500 Watt HF Linear Amplifier ..... **$3,989.95**

ACOM

### *700 Watt HF Linear Amplifier*

As long as the VSWR stays below 3:1, this amplifier lets you change between the 160 and 10 meter bands without using an external tuner. The A1010 can withstand up to 240 watts of reflected power, up to 100 milliseconds of drive spikes and deep voltage drops. Its durability and front-panel controls make this amplifier an excellent choice.

AOM-1010 700 Watt HF Linear Amplifier ..... **$1,959.95**

ACOM

### *1,000 Watt HF+6M Linear Amplifier*

Easy to operate and easy to maintain, ACOM's A1000 is an extraordinary good value for HF operators. You can switch bands without a tuner, provided VSWR stays below 3.1. That gives you an edge during a contest scramble. Broadband input matching means that your radio will always see a very good load across the entire 1.8-54 MHz spectrum. Specially mounted relays deliver virtually silent QSK operation. This amplifier can also withstand significant amounts of reflected power and signal fluctuations.

AOM-1000 1,000 Watt HF Linear Amplifier ..... **$2,749.95**

AMERITRON®

AME-ICP-240

### *ICP-120 & ICP-240 In-Rush Current Protectors*

- Designed to stop damaging in-rush current
- Protect your tubes from thermal shock
- No complicated wiring, plugs right in to AC
- Not for use with motors (engines)

AME-ICP-120 In-Rush Current Protector, 120 Vac ..... **$79.95**

AME-ICP-240 In-Rush Current Protector, 240 Vac ..... **$79.95**

ACOM New!

### 1,000 Watt HF+6M Linear Amplifier

Answering the call from Hams who want a state-of-the-art, solid state RF amplifier with full HF and 6 meter coverage, ACOM introduces its 1200S. It's very compact and rugged, making it a smart choice for DXpeditions. The final PA stage uses a rugged LDMOS transistor, and a large color display features intuitive menus and on-board monitoring of 10 parameters. It's compatible with virtually all modern radios, requiring less than 50 watts of drive power.

AOM-1200S 1,000 Watt HF+6M Linear Amplifier..... **Pending FCC approval**

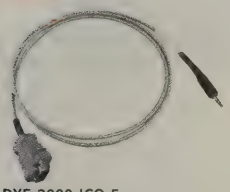
ACOM New!

### 1,500 Watt HF Linear Amplifier

The 2100 is ACOM's most user-friendly amplifier to date. It uses a powerful tuning aid and an automatic input attenuator to let you quickly match input impedance to the tube load impedance. Plus, as long as your VSWR stays under 3:1, you won't need an antenna tuner. The 2100 is packed with self-protection features and will withstand up to 400 watts of reflected power. Its resiliency makes the 2100 a good choice for Field Day, EMCOMM and base stations. The intuitive controls and OLED display contribute to the 2100's straightforward operation.

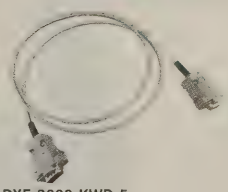
AOM-2100 1,500 Watt HF Linear Amplifier..... **$4,199.95**

DX ENGINEERING New!



DXE-2000-ICO-5

DXE-600S-YSU-5



DXE-2000-KWD-5

### Transceiver to Amplifier Interface and Keying Cables

The proper amplifier-to-radio link is essential to using all of the amplifier's functions (like band switching and keying). Make sure you're getting the most out of your setup with the application-specific interface cables. The amplifier and radio manufacturer are listed in the table below, a comprehensive rundown of model compatibility is at DXEngineering.com.

| Part Number | Radio | Amplifier | Cable Description | Price |
|---|---|---|---|---|
| DXE-2000-ICO-5 | Icom | ACOM 2000A | Icom C-IV Remote Port | **$35.00** |
| DXE-2000-KWD-5 | Kenwood | ACOM 2000A | RS-232 Com Port | **$35.00** |
| DXE-2000-YSU-5 | Yaesu | ACOM 2000A | RS-232 CAT | **$35.00** |
| DXE-2000-K3-5 | Elecraft K3 | ACOM 200A | DB-9 Connector | **$35.00** |
| DXE-600S-ICO-5 | Icom | ACOM 600S | Icom C-IV Remote Port | **$35.00** |
| DXE-600S-KWD-5 | Kenwood | ACOM 600S | RS-232 Com Port | **$35.00** |
| DXE-600S-YSU-5 | Yaesu | ACOM 600S | RS-232 CAT | **$35.00** |
| DXE-600S-K3-5 | Elecraft | ACOM 600S | DB-9 Connector | **$35.00** |
| DXE-KWD-RCA | Kenwood | Universal | Keying, RCA to 7-pin DIN | **$35.00** |
| DXE-YSU-8P-RCA | Yaesu | Universal | 8-pin Mini DIN to RCA | **$35.00** |

ACOM

### 600 Watt HF+6M Linear Amplifier

This amplifier gives you comprehensive remote control capabilities. Operation is via a series of intuitive menus displayed on a high-resolution color display. Using the amp's CAT interface, the amplifier will automatically "follow" the transceiver while switching bands. The 600S monitors the input frequency and will automatically switch the bands to compensate for changes. It's compatible with all transceivers on the market and needs a mere 30 watts of input power to operate.

AOM-600S 600 Watt HF Linear Amplifier..... **$2,794.95**

### Equipment Covers

You've spent a lot of money on your Ham Radio gear, so protect it with EAntenna's high-quality Equipment Covers. These custom-fit covers are embroidered with the logo and model number of the gear they're protecting. Each polyester/cotton cover has slits in the back, so you can slip it over the radio or amp without unplugging any cables.

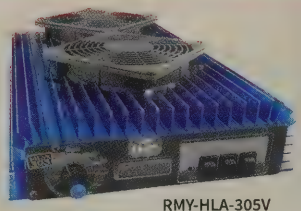
EAN-FACOM1000 ACOM 1000 ..... **$39.95**
EAN-FACOM1010 ACOM 1010 ..... **$39.95**
EAN-FACOM2000A ACOM 2000A..... **$39.95**
EAN-FACOM1500 ACOM 1500 ..... **$39.95**

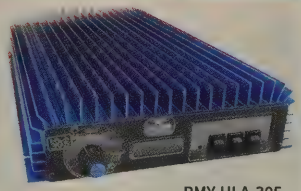
ACOM

| Part Number | Coverage | Watts (PEP) | Modes | QSK? | VSWR Tolerance | Tube Complement | Price |
|---|---|---|---|---|---|---|---|
| AOM-2100 | 1.8-54.0 MHz | 1,500 | All | Yes | Up to 3.1 | 4CX1000A | **$4,199.95** |
| AOM-2000A | 1.8-29.7 MHz | 1,500 | All | Yes | Up to 3:1 | 4CX800A (x2) | **$6,499.95** |
| AOM-1500 | 1.8-54.0 MHz | 1,500 | SSB, CW | Yes | Up to 3:1 | 4CX1000A | **$3,989.95** |
| | | 1,200 | RTTY, Data | | | | |
| AOM-1200S* ** | 1.8-54.0 MHz | 1,000 | All | Yes | Up to 3:1 | Solid State | **Pending FCC Approval** |
| AOM-1000 | 1.8-54.0 MHz | 1,000 | All | Yes | Up to 3:1 | 4CX800A | **$2,749.95** |
| AOM-1010 | 1.8-29.7 MHz | 700 | All | No | Up to 3:1 | 4CX800A | **$1,959.95** |
| AOM-600S* | 1.8-54.0 MHz | 600 | All | Yes | Up to 1.5:1 at full output* | Solid State | **$2,794.95** |

*AOM 600S, AOM 1200S, with SWR above 1.5:1 (through 3:1), the output power will be reduced proportionally. ** Pending FCC approval.

RMY-LA-145


RMY-HLA-305V


RMY-HLA-305

## HF and VHF Amplifiers

For over 40 years, RM Italy has made versatile and compact amplifiers for base, mobile and handheld radios. By controlling every phase of the manufacturing process, RM Italy is able to maintain incredibly high quality standards and capitalize on opportunities for innovation. These LA-250/305(V) VHF and HLA-305(V) HF solid state amplifiers are a smart choice for operators using a mobile or portable radio. The LA-144/145 models are a great way to maximize your HT's operating reach.

RM ITALY

| Part Number | Frequency Coverage | Max. Input Power | Max. Output Power (PEP) | Operating Modes | Interface | Cooling | Price |
|---|---|---|---|---|---|---|---|
| RMY-LA-250 | 2 Meters | 25 Watts | 200 Watts | AM, FM, SSB, CW | Mode Select, LCD Screen | Heat Sink | $496.95 |
| RMY-LA-250V | 2 Meters | 25 Watts | 200 Watts | AM, FM, SSB, CW | Mode Select, LCD Screen | Fans | $541.95 |
| RMY-HLA-305 | 160-10 Meters | 10 Watts | 200 Watts | AM, FM, SSB, CW, RTTY, Digital | Band and Mode Select, LCD Screen | Heat Sink | $698.95 |
| RMY-HLA-305V | 160-10 Meters | 10 Watts | 200 Watts | AM, FM, SSB, CW, RTTY, Digital | Band and Mode Select, LCD Screen | Fans | $728.95 |
| RMY-LA-144 | 2 Meters | 4 Watts | 60 Watts | AM, FM, SSB, CW | SSB/FM Select | Heat Sink | $124.95 |
| RMY-LA-145 | 2 Meters | 5 Watts | 85 Watts | AM, FM, SSB, CW | SSB/FM Select | Heat Sink | $155.95 |

ICOM

## Icom PW1 HF/50 MHz All Band 1 kW Linear Amplifier

- Coverage: 160-15 meters plus 6 meters
- (User modifiable to cover 10 and 12 meters)
- Power output: 1,000 watts on all bands at 240 Vac Input: 500W at 120 Vac Input
- Automatic AC input voltage selector
  - Accepts 180-264 Vac or 90-132 Vac
- Solid State No-Tune instant bandswitching
  - Built-In Antenna Tuner
- Full 100% duty cycle output, even RTTY and SSTV
- Full break-in CW (QSK)
- Removable face plate

ICO-PW1 HF/50 MHz Solid State Linear Amplifier with Auto Tuner... **$4,859.95**

AMERITRON

## QSK-5 High Power Transmit/ Receive Switches

- Electronic PIN diode switching for fast QSK operation
- Power handling:
  - 2,500 watts PEP
  - 2,000 watts CW
  - 750 watts RTTY/SSTV/FM
- Sure switching prevents hot switching RF power
- AmpSaver feature shuts off tube current between dots and dashes

AME-QSK-5 Self-Contained QSK-5 High Power T/R Switch, 120 Vac.....**$369.95**

AME-QSK-5X Self-Contained QSK-5 High Power T/R Switch, 220/240 Vac.....**$349.95**

AME-QSK-5PC PC Board Assembly, QSK-5 High Power T/R Switch.....**$279.95**

DX ENGINEERING

## 572B Tube for Power Amplifiers

Supplies of vintage amplifier tubes are drying up and finding quality new tubes has been a challenge. DX Engineering is now a source for the popular 572B model power tube, which means you can finally repair or upgrade your 572B linear amplifier. Used in pairs, DX Engineering 572B tubes are capable of generating up to 600 watts of RF transmit power; quads will produce 1,200 watts.

DXE-572B 572B Power Tube, Each.....**$81.95**

**Visit DXEngineering.com for more Amplifier Accessories.**

AMERITRON

## ATP-102 Deluxe Amplifier Tuning Pulser

- Relieves stress on amps, tuners and dummy loads during tuning
- Works with any solid state transceiver or transmitter
- Front panel adjustment controls

AME-ATP-102 Deluxe Amplifier Tuning Pulser .....**$79.95**

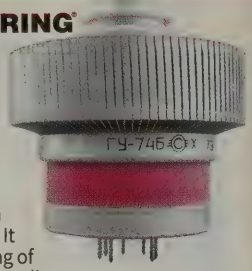
AMERITRON

## Ameritron Amplifier Modification Kits

Add 10 and 12 meter band coverage to your Ameritron amplifier. Proof of U.S. Amateur License is required when purchasing 10 meter modification kits. Be sure to check your amplifier's serial number for modification compatibility before you order.

| Part Number | For Amp Model | Serial Number | Price |
|---|---|---|---|
| AME-MOD-10M | ALS-500M, 600 | 12521 & - | $29.95 |
| AME-MOD-10MB | ALS-600, 600S | 12522 & + | $29.95 |
| AME-MOD-10MK | ALS-1300 | Any | $36.95 |

DX ENGINEERING



## GU74B Ceramic Power Tetrode

Equivalent to the 4CX800A, this tetrode is an exact replacement for the tube in your Alpha 99, ACOM 2000A and many other high performance RF amplifiers. It has a plate dissipation rating of 800 watts and, when used as a linear power amplifier, the GU74B will make 750 watts for both PEP SSB and key-down CW. In modern amplifiers with auto-tuning and tube protection circuits, we've seen these tubes produce much more power and exhibit an incredibly long service life.

DXE-GU74B GU74B/4CX800A Ceramic Power Tetrode.....**$349.95**

AMERITRON

## Automatic Bandswitching Radio Interface

Connect this between your Ameritron ALS-Series Solid State Amplifier and transceiver, and it will automatically select the right frequency range for your amp based on the band you're using. It works with most Icom, Kenwood and Yaesu transceivers, and there's a full compliment of interface cables available for easy hookup.

AME-ARI-500 Automatic Bandswitching Radio Interface.....**$119.95**

**ARI-500 Interface Cables**-These cables let you connect your specific transceiver to the ARI-500 and your amplifier.

| Part Number | Radio Brand | Description | Price |
|---|---|---|---|
| AME-RJ-DB15HE | Elecraft | K3 (BCD) | $24.95 |
| AME-RJ-7DI | Icom | 7-pin DIN | $24.95 |
| AME-RJ-13D | Icom | 13-pin DIN | $24.95 |
| AME-RJ-DB98MK | Kenwood | 8-pin mini-DIN | $24.95 |
| AME-RJ-8MY | Yaesu | 8-pin mini-DIN | $24.95 |
| AME-RJ-8MY2 | Yaesu | 8-pin mini-DIN | $24.95 |
| AME-RJ-10MY | Yaesu | FT-450/950, FTDX-1200 | $24.95 |
| AME-RJ-DB9Y | Yaesu | CAT/FT-847 | $24.95 |
| AME-RJ-DB15Y | Yaesu | FT-DX3000 | $24.95 |

AMERITRON

## ARB-704 Amplifier/ Transceiver Interface Buffer

- Protects your expensive radio from damage
- Works with almost any transceiver
- No moving parts, almost instant switching

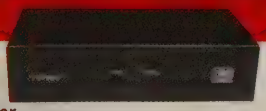
AME-ARB-704 Interface Buffer .....**$59.95**

AME-ARB-704I2 Interface Buffer with Cable for Icom 7000/760/718 .....**$59.95**

**ARB-704 Interface Cables**

These cables let you connect your specific transceiver to Ameritron's ARB-704 Interface Buffer. They are plug-and-play configurations that let you safely connect virtually any modern transceiver to your ARB-704.

| Part Number | Radio | Description | Price |
|---|---|---|---|
| AME-PNP-7DI | Icom | 7-pin DIN | $17.95 |
| AME-PNP-8DI | Icom | 8-pin DIN | $17.95 |
| AME-PNP-13D | Icom | 13-pin DIN | $17.95 |
| AME-PNP-7D | Kenwood | 7-pin DIN | $17.95 |
| AME-PNP-8MK | Kenwood | 8-pin mini-DIN | $17.95 |
| AME-PNP-5M | Yaesu | 5-pin mini-DIN | $17.95 |
| AME-PNP-8D | Yaesu | 8-pin DIN | $17.95 |
| AME-PNP-8M | Yaesu | 8-pin mini-DIN | $17.95 |
| AME-PNP-10MY | Yaesu | 10-pin mini-DIN | $17.95 |
| AME-PNP-DB15Y | Yaesu | DB15M | $17.95 |



**YT-100 Automatic Antenna Tuner**
- Tailored to certain Yaesu radios
- 100 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories, sorted by frequency
- Tunes 4 to 800 Ω loads (16 to 150 Ω loads on 6M)
- SO-239 in/out connections for dipoles, verticals, beams, etc.
- Powered from Yaesu radio using supplied CAT interface cable

LDG-YT-100 ..... **$199.95**

**Z-11ProII Automatic Antenna Tuner**
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- 4,000 memories with automatic storage
- Tunes 6 to 100 Ω loads (16 to 150 Ω on 6M)
- Can operate using four AA batteries with user-installed holder
- Requires 6 to 16 Vdc at 300mA maximum, 25uA standby

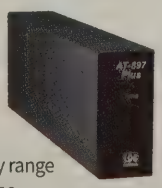
LDG-Z-11PROII ..... **$179.95**

**Z-100Plus Automatic Antenna Tuner**
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 second memory tune
- 2,000 memories, sorted by frequency
- Tunes 6 to 800 Ω loads (16 to 150 Ω on 6M)
- SO-239 in/out connections for dipoles, verticals, beams, etc.
- Requires 7 to 18 Vdc at 100mA maximum

LDG-Z-100PLUS ..... **$159.95**

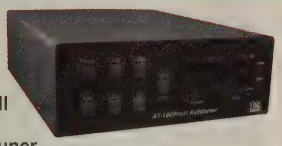
**YT-1200 Automatic Antenna Tuner**
- Tailored to the Yaesu FTDX-1200, FT-450, FT-950 and FTDX-3000
- Handles .1 to 100 watts, 30 watts on PSK
- 1.8 to 54 MHz frequency range
- 2,000 fast memories
- Tunes 4 to 1,000 Ω loads
- Includes 1.5' CAT/Power interface cable

LDG-YT-1200 ..... **$259.95**



**AT-897Plus Automatic Antenna Tuner**
- Tailored to the Yaesu FT-897 radio
- 100 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 1 to 7 second tuning time
- 2,000 memories, sorted by frequency
- Tunes 6 to 800 Ω loads
- Switched L tuning network
- Requires 11 to 14 Vdc at 300mA

LDG-AT-897PLUS ..... **$199.95**



**AT-100ProII Automatic Antenna Tuner**
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- Two-position switch
- 2,000 memories for each antenna and auto configuration storage
- Tunes 6 to 1,000 Ω loads (16 to 150 Ω on 6M)
- Matches virtually any coax-fed antenna
- Bar graph LED display shows power, SWR, mode and status
- Requires 11 to 16 Vdc at 500mA

LDG-AT-100PROII ..... **$229.95**

**AT-200ProII Automatic Antenna Tuner**
- 250 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2-position switch with 8 antenna memories
- 0.5 to 6 second tuning time
- Tunes 6 to 800 Ω loads (6 to 3,600 Ω with 4:1 balun)
- 4,000 memories for instantaneous band switching
- Easy-to-read LED display for RF power, SWR and status
- Requires 11 to 16 Vdc at 750mA

LDG-AT-200PROII ..... **$259.95**

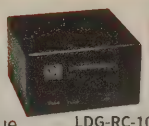
**KT-100 Automatic Antenna Tuner**
- Works with any AT-300 compatible Kenwood radio
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- Tunes 6 to 1,000 Ω loads (6 to 4,000 Ω with 4:1 balun)
- Optional external balun allows random, long wire or ladder line fed antennas
- Powered by Kenwood transceiver via included interface cable

LDG-KT-100 ..... **$199.95**

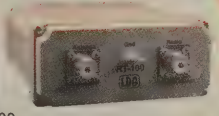
**IT-100 Automatic Antenna Tuner**
- Works with any AH-3/AH-4 compatible Icom radio
- 125 watt power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- Tunes 4 to 800 Ω loads (4 to 3,600 Ω with 4:1 balun)
- Optional external balun allows random, long wire or ladder line fed antennas
- Powered by Icom transceiver via included cable

LDG-IT-100 ..... **$179.95**

## LDG ELECTRONICS *Remote Antenna Tuner and Console Packages*



LDG-RC-100



LDG-RT-100

Just install one of these near your feedpoint, and you'll remedy a lot of power loss issues due to SWR in your feedline. These tuners are packed with 2,000 memories for instant band switching with sizzling fast speed and precision. They can tune 4 to 800 Ω loads, and are well suited for dipoles, verticals, inverted Vs, beams or any coax-fed antenna.

The 600 series can handle up to 600 watts of coaxial in/out power, and 200 watts in digital mode. The 100 series handles up to 125 watts SSB/CW, and 30 watts digital.

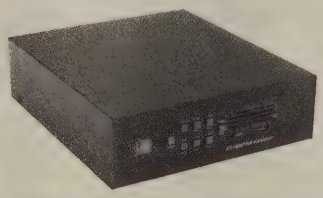
The combo packages include a remote control unit. The controller has an integrated DC power injector to supply the tuner, plus an on/off switch and tune button for comprehensive tuner control.

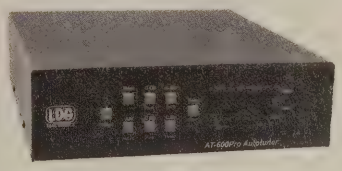
LDG-RT-RC-100 100 Watt Remote Tuner and Console ..... **$249.95**

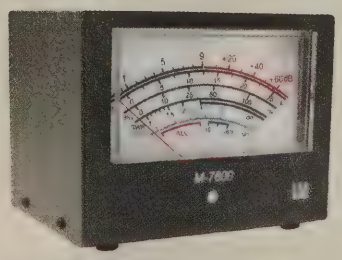
LDG-RT-RC-600 600 Watt Remote Tuner and Console ..... **$449.95**

**Antenna Tuner Cables**-The proper link between your tuner and radio is essential. LDG Electronics makes it easy to create the perfect match with these interface cables.

| Part Number | Radio | Notes | Price |
|---|---|---|---|
| LDG-IC-PAC | Icom | For radios with AH-3/4 port, 14" | $10.95 |
| LDG-IC-PAC-6 | Icom | For radios with AH-3/4 port, 6' | $12.95 |
| LDG-IC-KT | Kenwood | Replacement for LDG KT-100 tuner cable | $11.95 |
| LDG-Y-ACC | Yaesu | For FT-100/857/897 radios | $12.95 |
| LDG-YT-PAC-1200 | Yaesu | For FT-450/950/1200 radios | $15.00 |
| LDG-YT-PAC-3000 | Yaesu | For FT-DX3000 radio | $15.00 |
| LDG-DC-PWR-CABLE | LDG | Replacement power cable, LDG devices | $4.95 |







**AT-1000ProII Automatic Antenna Tuner**
- 1,000 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories for each antenna and auto configuration storage
- Tunes 6 to 1,000 Ω loads (16 to 150 Ω on 6M)
- 10 second tuning time, 0.2 second memory tuning
- Bar graph LED display shows SWR and selectable power ranges

LDG-AT1000PROII ..... **$539.95**

**Optional Remote Meter for AT-1000ProII**

LDG-M-1000 ..... **$129.95**

**AT-600ProII Automatic Antenna Tuner**
- Tunes 6 to 800 Ω loads
- 600 watts power handling maximum
- 1.8 to 54 MHz frequency range
- Two-position switch with memories for each position
- 0.5 to 6 second tuning time, 0.1 second memory tune
- 4,000 memories for instant band switching
- Bright LED display
- Requires 11 to 16 Vdc at 750mA

**Optional Remote Meter for AT-600ProII**

LDG-M-600 ..... **$129.95**

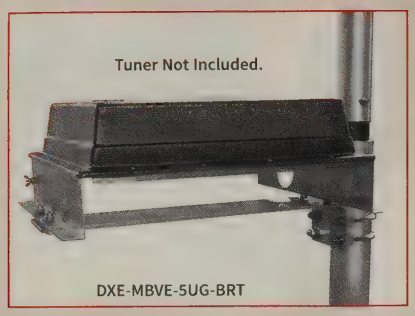
**Automatic Antenna Tuner**
- Tailored to the Yaesu FT-817 radio
- Excellent for QRP operation
- 20 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories, sorted by frequency
- Tunes 6 to 600 Ω loads
- Powered by 4 AA batteries (not included)

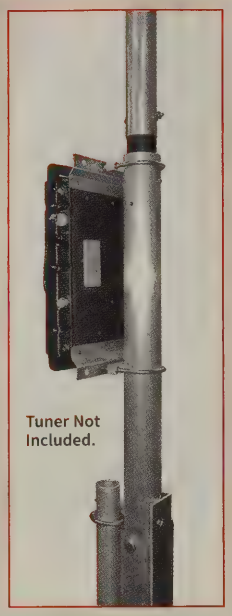
LDG-Z-817 ..... **$129.95**

***DXEngineering.com***

We're always adding and developing innovative products that improve your on-air experience. Find the hottest new gear (including all the latest stuff that we couldn't cram into this catalog) at DXEngineering.com.

Our website's tech support section has a comprehensive FAQ, a reference library filled with tech articles and free downloadable instruction manuals. Remember, if you've got a nagging issue with your station, you can always contact us via phone or email for solutions.




DX ENGINEERING

### Remote Antenna Tuner Mounting Kits

It's important to mount your MFJ remote antenna tuner as close as you can to your DX Engineering MBVE-5A multi-band vertical antenna to maintain signal efficiency. Just make sure to protect it from weather, rising water and curious critters.

Use DX Engineering's new remote antenna mounting kits. They attach right to the base of the vertical. More importantly, they'll mount the tuner up off the ground—away from Mother Nature and her furry friends.

Select your kit based on your tuner model; the 993BRT, 994BRT, 998BRT remote tuners are supported.

| | | |
|---|---|---|
| DXE-MBVE-5AE-BRT | Mounting Kit, for MFJ-993/994BRT | $338.85 |
| DXE-MBVE-5AE-RT | Mounting Kit, for MFJ-998RT | $393.85 |

**Antenna, 43' with Tuner Mounting Kits and Tuner**

| | | |
|---|---|---|
| DXE-MBVE-5AEBRT3 | Mounting Kit, Includes MFJ-993BRT Tuner | $696.75 |
| DXE-MBVE-5AEBRT4 | Mounting Kit, Includes MFJ-994BRT Tuner | $796.75 |
| DXE-MBVE-5AERT8 | Mounting Kit, Includes MFJ-998RT Tuner | $1,191.75 |

**Remote Antenna Tuner Mount Upgrade Kits**

If you have an earlier model MBVE-5, you can also upgrade to the 5AE mount with these kits.

| | | |
|---|---|---|
| DXE-MBVE-5UG-BRT | Upgrade Kit, for MFJ-993/994BRT | $129.85 |
| DXE-MBVE-5UGBRT3 | Upgrade Kit, Includes MFJ-993BRT Tuner | $429.80 |
| DXE-MBVE-5UGBRT4 | Upgrade Kit, Includes MFJ-994BRT Tuner | $529.80 |
| DXE-MBVE-5UG-RT | Upgrade Kit, for MFJ-998RT | $184.85 |
| DXE-MBVE-5UGRT8 | Upgrade Kit, Includes MFJ-998RT Tuner | $924.80 |

ALINCO

### Automatic Random-Length Antenna Tuner

Designed specifically for Alinco radios, this antenna tuner can tune non-resonant verticals, wire antennas and mobile installations. It covers 1.6-30 MHz, when used with a 12-meter element. Rugged and versatile, the EDX-2 handles up to 200 watts PEP. Check DXEngineering.com to confirm radio compatibility.

| | | |
|---|---|---|
| ALO-EDX-2 | Automatic Random-Length Antenna Tuner | $329.95 |

ICOM

### AH-4 Antenna Tuner

Icom's AH-4 antenna tuner lets you automatically tune a 23 foot or longer wire antenna for portable or mobile HF/50 MHz use. The PTT tune function makes changing bands easy, too.

| | | |
|---|---|---|
| ICO-AH-4 | Antenna Tuner | $299.95 |
| ICO-OPC-136 | AH-4 Control Cable, 16.4' | $54.95 |

YAESU
The radio

### Automatic Antenna Tuners

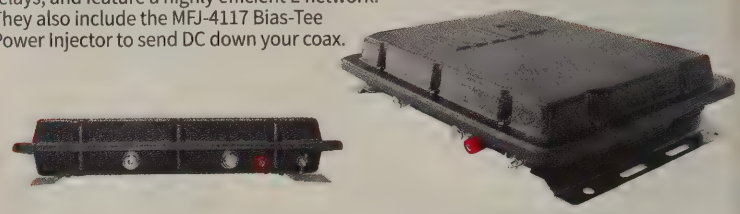
Yaesu offers a pair of antenna tuners to complement its base and portable radios. These compact tuners cover 1.5-54 MHz and handle 100 watts. Switching bands is easy, thanks to the tuners' memory storage and laser-fast tuning.

| | | |
|---|---|---|
| YSU-FC-30 | Antenna Tuner for FT-857/897 | $249.95 |
| YSU-FC-40 | Antenna Tuner for FTDX-1200/300 and FT-450/857 | $329.95 |

MFJ

### 300, 600 and 1,500 Watt Remote Autotuners

These automatic tuners are mounted in durable, weather resistant hard-plastic cases for remote outdoor applications. They cover 1.8 to 30 MHz, use heavy-duty 16 amp/1,000-volt relays, and feature a highly efficient L-network. They also include the MFJ-4117 Bias-Tee Power Injector to send DC down your coax.



MFJ-998RT handles 1,500 watts SSB/CW power level and matches 12-1,600 Ω antennas.

MFJ-994BRT handles 600 watts SSB/CW power level and matches 12-800 Ω antennas.

MFJ-993BRT handles 300 watts SSB/CW power level and matches 6-1,600 Ω antennas.

MFJ remote tuners let you quickly tune any antenna, balanced or unbalanced, automatically. It's a comprehensive automatic antenna tuner ideal for Multiband Verticals like DX Engineering's popular 43 foot models.

**1,500 Watt Legal Limit Remote Autotuner**

The MFJ-998RT IntelliTuner™ is a comprehensive Full Legal Limit remote automatic antenna tuning unit. It lets you rapidly tune almost any unbalanced or single-wire antenna automatically. Balanced feedlines may be used with an MFJ-912 1.5 kW 4:1 balun connected to the MFJ-998RT antenna output.

MFJ's exclusive InstantRecall™, IntelliTune™ and AdaptiveSearch™ algorithms give you fast automatic tuning with more than 20,000 non-volatile VirtualAntenna™ memories. Each of the two antenna banks has four banks of memory; each memory bank has over 2,500 non-volatile memories for tuner settings. The banks allow you to save settings for several antennas, giving you the flexibility to move your tuner between antennas or to different locations without losing the old settings.

The tuner includes a highly efficient switched-L network with wide matching capability, 1.8 to 30 MHz coverage, backlit LCD display and heavy-duty 16 amp/1,000-volt relays. It is rated at 1,500 watts SSB/CW and will match impedances from 12 to 1,600 Ω (SWR up to 32:1).

It includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax.

| | | |
|---|---|---|
| MFJ-998RT | 1,500 Watt Legal Limit Remote Autotuner | $739.95 |

**600 Watt Remote Autotuner**

The MFJ-994BRT IntelliTuner™ is a 600 watt remote automatic antenna tuning unit similar is size to the MFJ-993BRT. At 600 watts, it's a perfect match for Ameritron's solid state ALS-600/S solid state amplifier and popular tube-type AL-811/H amplifiers.

You can eliminate extra feedline loss caused by SWR by tuning your antenna outdoors at its feedpoint. This tuner includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax. The MFJ-994BRT lets you quickly tune any 12-1,600 Ω antenna, balanced or unbalanced, automatically.

| | | |
|---|---|---|
| MFJ-994BRT | 600 Watt Remote Autotuner | $399.95 |

**300 Watt Remote Autotuner**

The MFJ-993BRT IntelliTuner™ is a 300 watt remote automatic antenna tuning unit mounted in a durable hard-plastic case. Measuring just 9.25" W x 3" H x 14.25" D, it covers 1.8 to 30 MHz, has heavy-duty 16 amp/1,000-volt relays and is a highly efficient L-network. It also includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax.

It's intended to be mounted outside at the feedpoint of your antenna, providing a 50 Ω match to your coaxial cable feedline and eliminating additional feedline loss caused by SWR.

The MFJ-993BRT lets you quickly tune any 6-1,600 Ω antenna, balanced or unbalanced, automatically.

| | | |
|---|---|---|
| MFJ-993BRT | 300 Watt Remote Autotuner | $299.95 |

### Antenna Tuners

Here are some of MFJ's most popular HF antenna tuners, including several from its manual Versa Tuner and automatic IntelliTuner lines. Many IntelliTuners are designed to work with a specific transceiver; find the right one for your radio, along with plenty of specs on each, at DXEngineering.com.

| Part Number | Type | Power Handling | Price |
|---|---|---|---|
| MFJ-939I | Intellituner | 200 W | $159.95 |
| MFJ-939K | Intellituner | 200 W | $159.95 |
| MFJ-939Y | Intellituner | 200 W | $159.95 |
| MFJ-939Y3 | Intellituner | 200 W | $159.95 |
| MFJ-939Y4 | Intellituner | 200 W | $159.95 |
| MFJ-993B | Intellituner | 300 W | $249.95 |
| MFJ-994B | Intellituner | 600 W | $359.95 |
| MFJ-949E | Versa Tuner II | 300 W | $169.95 |
| MFJ-969 | Versa Tuner II | 300 W | $199.95 |
| MFJ-962D | Versa Tuner III | 800 W | $279.95 |
| MFJ-989D | Versa Tuner V | 1,500 W | $349.95 |

Palstar

### AT5K 3,500 Watt Antenna Tuner

Nicknamed the "Rock Crusher," this American-made Palstar AT5K 3,500 Watt Antenna Tuner delivers an impressive 3,500 watts single tone continuous with low losses, and 5,000 watts PEP performance at certain impedance ranges. The AT5K tuner offers a wide impedance tuning range from 1.8 through 22 MHz with limited impedance tuning from 22 to 29.5 MHz.

The AT5K tuner provides balanced output with a high power 5,000 watt PTFE cable balun at the input of the tuner circuit. When the network is properly tuned, a 50 Ω impedance will be presented to the input and output of the balun for maximum efficiency. This tuners is designed to handle both balanced line feeds and unbalanced coax feedlines.

- Fan-cooled for extended 100% duty cycle operation
- Full-performance T-match circuit, wide range impedance matching from 8 to 2,000 Ω
- Custom large value variable capacitors, 600pF at 6 kV
- 10 amp silver plated ceramic body roller inductor handle-driven crank
- 11-gauge aluminum chassis, powdercoated on front and top
- Power connector and cable included

PAS-AT5K 3,500 Watt Antenna Tuner ..... **$1,199.95**

Palstar

### AT4K 2,500 Watt Antenna Tuner

The legendary AT4K 2,500 Watt Antenna Tuner built the Palstar reputation for high quality and durability. Updated for the 21st century, the AT4K now has a switchable, dual-movement active peak and peak hold wattmeter. The selection between unbalanced or balanced output is relay-switched with a front panel control on the AT4K.

The AT4K T-matching wide range network uses a 1:1 unbalanced-to-balanced transformer in the input of the network. When the network is properly tuned, an impedance of 50 Ω is presented to the input and output of the balun.

- T-match circuit with impedance matching range from 8 to 2,000 Ω
- Custom large value variable capacitors, 460pF at 6 kV
- 10 Amp silver plated ceramic body roller inductor handle-driven crank
- 11-gauge aluminum chassis, powdercoated on front and top

PAS-AT4K 2,500 Watt Antenna Tuner ..... **$879.95**

Palstar manufactures high-quality Ham Radio components, including industry-leading antenna tuners and shortwave receivers. Palstar products are designed and tested for real-world performance and include features that will truly improve your Amateur Radio operation. Palstar's AT4K 2500-watt tuner helped cement the company's reputation for quality, dependable components and the Palstar legacy continues to grow with cutting-edge new equipment designed to take your hobby to the next level. Shop DX Engineering now for superior Palstar performance!

PAS-HF-AUTO

PAS-HF-AUTO-R

Palstar

### HF-AUTO 1,500 Watt Automatic Antenna Tuner

Palstar is taking the low-power autotuner to the next level with the HF-AUTO. This unit uses quiet, continuously variable components to create a perfect antenna match, without noisy relays. It can tune with a mere 2 watts of power, yet can handle 1,500 watts. The HF-AUTO covers 1.8 through 54 MHz, tunes within 6 seconds and has a large, backlit LCD for easy readout of RF power, SWR, frequency and more.

Adding the optional Remote Control allows you to operate the HF-AUTO from up to 500 feet away. Depending on when it was made, your HF-AUTO tuner may not work with the remote without an upgrade, so visit DXEngineering.com to check compatibility.

PAS-HF-AUTO 1,500 Watt Automatic Antenna Tuner ..... **$1,499.95**
PAS-HF-AUTO-R Antenna Tuner Remote Control ..... **$495.00**
PAS-9009600 HF-AUTO-R Remote Control Cable ..... **$89.95**

Palstar

### AT2K 2,000 Watt Antenna Tuner

Building upon Palstar's impressive AT1500CV tuner, this AT2K 2,000 Watt Antenna Tuner features a new, smaller roller inductor, allowing the AT2K to tune from 160 meters to 6 meters. It can match dipoles, center fed doublets, verticals, end-fed wire, delta loops, beams, Windoms, inverted vees and many more antenna types.

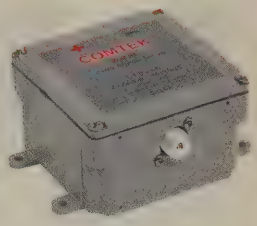
The AT2K features three impedance matching controls for greater tuning range, 6-position antenna selector switch and Peak/Peak Hold metering in two ranges, 300 and 3,000 watts. Standing Wave Ratio measurements are displayed with this illuminated cross-needle meter. Its chassis is made of 11-gauge aluminum with a powdercoated finish on the front and top cover.

- Wide impedance range 20 to 1,500 Ω from 160 to 6 meters (assuming resistive load)
- Low minimum custom variable capacitors, 15pF to 400pF at 4.5 kV
- 26 uH 5 kV ceramic body roller inductor with turns counter
- Silver plated inductor wheel shaft and contact wheel

PAS-AT2K 2,000 Watt Antenna Tuner ..... **$559.95**

## Jerry Sevick W2FMI-inspired COMTEK Baluns

### Baluns



COMTEK Baluns were inspired by the writings of Jerry Sevick W2FMI, published in his book *Understanding, Building and Using Baluns and Ununs.* COMTEK baluns are value-engineered to provide maximum performance at minimum cost while providing a superb, efficient match between unbalanced coax and balanced antennas.

- Design inspired by Jerry Sevick W2FMI with modern improvements from DX Engineering's in-depth balun R&D
- Unique high voltage compensating capacitors for unequalled SWR bandwidth
- Outstanding ferrite mix coated toroid core with special design to accommodate close coupling without excessive stress
- Exceptionally high and consistent common-mode impedance across the specified band width provides isolation where it is needed most
- Special wire size selection and PTFE-insulated wire sleeves provide exact impedance matching and superb insulation, unlike common Thermaleze® wire
- Typical insertion loss is less than 0.2 dB
- Power handling on HF is 3 kW CW and 5 kW SSB on single core models, 5 kW CW and 7 kW SSB on dual core models.
- Gasketed SO-239 connectors are silver plated with PTFE insulation
- All hardware is stainless steel, studs are 1/4"-20
- COMTEK Baluns are sealed in a weatherproof 4" x 4" x 2" NEMA box which makes an excellent outdoor enclosure

**1:1 Single Core**

COM-BAL-11150T 3 kW CW/5 kW SSB, 1.8 to 54 MHz*, Top Studs ..... **$104.95**

**1:1 Dual Core**

COM-BAL-11150DT 5 kW CW/7 kW SSB, 1.8 to 54 MHz*, Top Studs ..... **$118.95**

**4:1 Single Core**

COM-BAL-41130T 3 kW CW/5 kW SSB, 1.8 to 54 MHz*, Top Studs ..... **$109.95**

**4:1 Dual Core**

COM-BAL-41150T 5 kW CW/7 kW SSB, 1.8 to 54 MHz*, Top Studs ..... **$129.95**

**Contact DX Engineering Customer Support to discuss your application for recommendations.**
***Also may be used up to 54 MHz with reduced ratings.**

DX ENGINEERING

### Balun Upgrade Kits

If you're using the BN-86 or BN-4000D balun originally supplied with your Hy-Gain HF Yagi, these balun combos are a smart upgrade. They feature an all new single core 1:1 COMTEK balun specifically designed to be a better than new replacement for the original unit. The kits include the balun, plus the proper mounting brackets, stainless clamps and hardware to complete your retrofit. We offer the kits in four flavors, depending on your antenna setup.

Want to attach your balun to your antenna's driven element? You'll need our wire terminal and spacer kit, available separately.

| Part Number | Balun Mounting Orientation On The Boom | Boom Diameter | Price |
|---|---|---|---|
| DXE-BN86-UPG-15T | Top | 1.5" OD | **$145.80** |
| DXE-BN86-UPG-15B | Bottom | 1.5" OD | **$145.80** |
| DXE-BN86-UPG-20T | Top | 2" OD | **$145.80** |
| DXE-BN86-UPG-20B | Bottom | 2" OD | **$145.80** |

### CQ Magazine Publications

*Understanding, Building, and Using Baluns and Ununs*

W2FMI Jerry Sevick's compilation of balun performance and design criteria. It offers clear explanations to prompt further discussion of theory and applications.

CQM-SEVICKBALUNS Understanding, Building, and Using Baluns and Ununs ..... **$19.95**

DX ENGINEERING

### Vertical Feedline Current Choke

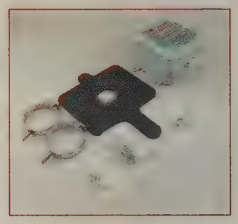
When quarter-wave antennas are constructed over a good radial system, they have a feedpoint impedance of about 36 Ω and currents are equal between the vertical section and the radial system. If the radial system is less than ideal—due to short radials, too-few radials or poor soil conductivity—the antenna system will try to use the feedline shield as part of the radial system. This leads to a loss in the efficiency and a higher take-off angle. Often the current introduced on the shield of the feedline causes RFI at the operator position.

Placing a vertical feedline current choke (VFCC) at the base of the quarter-wave antenna forces the currents to equalize between the vertical section and the radial system, even if the radial system is less than ideal. The balanced terminals of the VFCC should be connected directly to the base of the antenna and radial plate with appropriate lengths of low-inductance tinned copper braid or copper strap.

The DX Engineering VFCC is supplied with an insulated mounting shelf to isolate the feedline shield from ground. Purchase the optional V-Saddle Clamp for mounting the VFCC to pipe up to 2 inches OD.

DXE-VFCC-H05-A Vertical Feedline Current Choke Kit, 2/5 kW, HF ..... **$149.95**
DXE-VFCC-H10-A Vertical Feedline Current Choke Kit, 5/10 kW, HF ..... **$199.95**
DXE-SSVC-2P V-Saddle Clamp, for 1" to 2" OD Pipe ..... **$12.45**

### Balun Yagi Upgrade Kit



This kit is an upgrade for owners of DX Engineering's Skyhawk™ and Skylark HF Yagi antennas. The kit features a 1:1, 50 Ω balun that offers improved performance and durability over the bead balun originally supplied with the antennas. A DX Engineering balun mounting plate is included.

DXE-BAL-YAGI-UPG Balun Yagi Upgrade Kit ..... **$135.95**

### Line Isolator

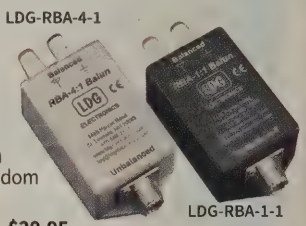
If RFI from your station is affecting your A/V equipment or computer, or if RFI is causing audio distortion while transmitting, then there's a good chance that your feedline is acting as an antenna. The root cause of the problem is poor isolation of the feedline from antenna currents.

COMTEK's new HF+6M Line Isolator can squash that RFI in your 50 Ω, coax-fed antenna system. Better yet, it won't compromise station performance and will actually improve your antenna's bandwidth. Plus, it handles the full legal limit. Durable and well suited to outdoor use, this isolator is an ideal complement to any HF antenna feedline. It's also a great way to compensate for an imperfect ground system, stop feedline radiation, and reduce RFI both to and from your radio.

COM-LI-11140 Line Isolator ..... **$99.95**

### RBA Series Baluns

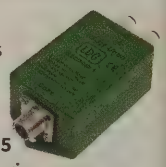
LDG ELECTRONICS




LDG Electronics designed these baluns to let you easily connect ladder line and long wire antennas to LDG's automatic antenna tuners. For more versatility, these baluns can operate without an LDG tuner and may be used with any of your long random or ladder line antenna projects.

LDG-RBA-4-1 4:1 Voltage Balun ..... **$29.95**
LDG-RBA-1-1 1:1 Current Balun ..... **$29.95**

### RU Series 4:1 UNUN



If you're using 50 Ω coax to feed your 43 foot vertical antenna, then this UNUN is essential to create a perfect match. Rated at 200 watts, it will easily tame your resonant verticals and will come in handy whenever you need a 4:1 match for an antenna project.

LDG-RU-4-1 RU Series 4:1 UNUN ..... **$29.95**

**Visit DXEngineering.com to learn more about LDG baluns and accessories.**

Palstar

### B4KC Current Baluns

Palstar B4KC Current Baluns are available in both 1:1 and 4:1 ratios. They're intended for indoor use on Lo-Z antenna applications for center-fed wire antennas with open wire and twin lead transmission lines. B4KC Baluns feature steatite insulators and a large 3.25" ferrite core with PTFE 12-gauge wire. Rated up to 4,000 watts.

PAS-B4K-4-1 4:1 Current Balun ..... **$89.95**
PAS-B4K-1-1 1:1 Current Balun ..... **$89.95**

## Cable Strain Relief Brackets

Mounting your balun or choke is only part of the equation—you still need to make sure your coaxial cables are secure and free from the stress of gravity. Our Cable Strain Relief Brackets will help prevent the cable from pulling from your PL-259 connector.

DXE-CSR8X-1 Cable Strain Relief Assembly, for RG-8X Cable.....**$17.95**

DXE-CSR213-1 Cable Strain Relief Assembly, for RG-213/U Cable.....**$17.95**

## Maxi-Core® Special Line Transformers

If you need a long low loss feedline for your HF antennas, this pair of transformers may be able to save you some money. Instead of running a length of expensive coax, these transformers let you use 450 Ω ladder line as an affordable alternative. Simply run your ladder line and connect a transformer to each end, then connect your 50 Ω coax to each transformer, linking your antenna to your transceiver.

More details on this cost-effective solution can be found at DXEngineering.com.

DXE-BAL450H10-BP Special Line Transformers, Pair.....**$399.95**

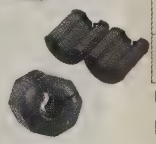
## Maxi-Core® Feedline Current Choke

Fend off RF Interference and reduce the noise level in your 50 Ω coaxially-fed antenna system. It improves your transceiver's efficiency by maximizing the transmit power going to your antenna. In addition to eliminating RFI, this current choke can also overcome a less-than-optimal ground system.

The DXE-FCC0050-H05-A handles 2 kW and is compatible with vertical, Yagi and log periodic antennas. It offers higher common-mode impedance, higher power handling and lower loss than other chokes. The Maxi-Core® Feedline Current Choke covers 160 to 6 meters and is an excellent way to combat poor feedline isolation.

DXE-FCC050-H05-B Feedline Current Choke .....**$113.95**

## RFI Suppression Beads



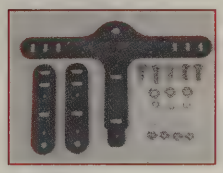
DX Engineering has selected the best RFI suppression beads for reducing cable-conducted ignition, fuel injector or other electrical noise in your mobile HF installation. We have observed a 3 S-unit improvement in many cases using these beads. The beads snap around wire or cable, and are useful in your home installation as well. The combo pack has four of the 0.275 inch diameter beads, and two each of the 0.525 inch and 0.750 inch diameter beads.

DXE-CSB-COMBO RFI Suppression Beads Combo Pack.....**$36.95**

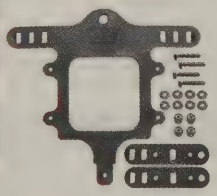
DXE-CSB-275P 0.275" RFI Suppression Beads, Pack of 10.....**$29.95**

DXE-CSB-525P 0.525" RFI Suppression Beads, Pack of 5.....**$29.95**

DXE-CSB-750P 0.750" RFI Suppression Beads, Pack of 5.....**$32.95**



DXE-UWA-KIT



DXE-WA-BMB

DXE-BMB-4P

DXE-BMB-1P

## Balun Mounting and Installation Solutions

Mounting your balun correctly is critical to maintaining its reliability. Here are several options to ensure your balun is ready to face Mother Nature.

**Wire Antenna Balun Mounting Bracket Kit** - To ensure proper balun operation, DX Engineering created a mounting kit designed specifically for single-band wire antenna setups. At the heart of each kit is a nearly indestructible mounting bracket made from a UV-resistant poly-resin compound. You'll also get a pair of DX Engineering end insulators, along with all the stainless hardware required for installation.

This bracket is compatible with every COMTEK Balun equipped with two top terminals.

DXE-WA-BMB Wire Antenna Balun Mounting Bracket Kit.....**$23.95**

**Universal Wire Antenna kit, center tee and end insulators mount to all DXE baluns.**

DXE-UWA-KIT Universal Wire Antenna Balun Mount Kit.....**$23.95**

**Balun Mounting Bracket Kits** - Select from several mounting options that match your Yagi boom, tower leg or mast's diameter. Each kit contains the appropriate stainless steel clamps and hardware, plus the aluminum bar mounting bracket. A perfect mounting method for any DX Engineering balun in a formed aluminum enclosure.

DXE-BMB-1P Mounting Kit, with .75" to 1.5" Clamps.....**$24.95**

DXE-BMB-2P Mounting Kit, with 1.56" to 2.25" Clamps.....**$24.95**

DXE-BMB-3P Mounting Kit, with 2.31" to 3" Clamps.....**$26.95**

DXE-BMB-4P Mounting Kit, Made for COMTEK Baluns.....**$17.95**

## Maxi-Core® High Power Transmission Line Transformers and Baluns

DXE-BAL050-H05-A

Ensure that your antenna system is operating optimally. These units have perfected the unbalanced-to-balanced transition, giving you the strongest signal your antenna is capable of producing in both transmit and receive situations. In addition to increased performance and coverage, these baluns reduce the electrical stress on your expensive equipment.

They cover the 1.8 to 30 MHz frequency range and offer increased operating bandwidth compared to other baluns. The baluns use ceramic insulators, stainless steel hardware and PTFE/silver SO-239 connectors.

Depending on the application each balun is housed in either a lightweight, formed aluminum enclosure for basic outdoor use or in a cast aluminum gasketed enclosure suitable for extreme environments.

| Part Number | Application | Ratio | Power (CW/SSB) | Enclosure | Price |
|---|---|---|---|---|---|
| DXE-BAL050-H05-A | Dipole, Yagi | 1:1 | 2/5 kW | Formed Aluminum | $129.95 |
| DXE-BAL050-H10-A | Dipole, Yagi | 1:1 | 5/10 kW | Formed Aluminum | $154.95 |
| DXE-BAL050-H11-C | Dipole, Yagi | 1:1 | 10/10+ kW | Cast Aluminum | $182.95 |
| DXE-BAL100-H11-C | Vertical Loop | 2:1 | 10/10+ kW | Cast Aluminum | $182.95 |
| DXE-BAL200-H10-A | Yagi, LPDA, Horizontal Loop | 4:1 | 5/10 kW | Formed Aluminum | $154.95 |
| DXE-BAL200-H11-C | Yagi, LPDA, Horizontal Loop | 4:1 | 10/10+ kW | Cast Aluminum | $189.95 |
| DXE-BAL300-H10-A | Folded Dipole | 6:1 | 5/10 kW | Formed Aluminum | $182.95 |
| DXE-BAL450-H10-A | 450 Ω Antenna | 9:1 | 5/10 kW | Formed Aluminum | $189.95 |
| DXE-BAL600-H10-A | Terminated Loop | 12:1 | 5/10 kW | Formed Aluminum | $189.95 |
| Special Balun Applications for Use with an Antenna Tuner | | | | | |
| DXE-BAL050H10AT | Multi-Band Dipole | 1:1 | 5/10 kW | Formed Aluminum | $139.95 |
| DXE-BAL050H11CT | Multi-Band Dipole | 1:1 | 10/10+ kW | Cast Aluminum | $182.95 |
| DXE-BAL200H10AT | Multi-Band Vertical, Off Center-Fed Dipole | 4:1 | 5/10 kW | Formed Aluminum | $154.95 |
| DXE-BAL200H11CT | Multi-Band Vertical, Off Center-Fed Dipole | 4:1 | 10/10+ kW | Cast Aluminum | $189.95 |

**Universal Wire Antenna kit, center tee and end insulators mount to all DXE baluns.**

DXE-UWA-KIT Universal Wire Antenna Balun Mount Kit.....**$23.95**

## 4:1 High Power UNUN for Non-Resonant Vertical Antennas

Using non-resonant multi-band antennas? This UNUN helps your antenna system operate at maximum efficiency by minimizing transmission line losses caused by SWR. You can add this UNUN to any 43 foot antenna system; it covers 1.8-30 MHz and can handle 2 kW CW/5 kW SSB.

Mounting and feedpoint connection kits are available separately; or you can purchase everything together for a complete installation package.

DXE-UN-43 High Power 4:1 UNUN.....**$121.95**

DXE-UN-BRKT-5A UNUN Mounting Kit.....**$12.95**

DXE-TCB-UNFK UNUN to Vertical Feedpoint Connection Kit.....**$9.95**

DXE-UN-43-R Complete Package with UNUN, Mounting and Feedpoint Kits.....**$147.95**

## 50 and 75 Ω Choke Baluns

Choke baluns ensure that RF does not flow on the outside shield of feedlines, phasing lines, etc. COMTEK baluns feature 100 Amidon beads on a length of RG-400 PTFE double-shielded silver coax terminated with Silver PTFE PL-259 UHF connectors. Assembled baluns are covered with 3M heat shrink tubing. RF bead kits are available if you wish to assemble your own chokes.

COM-CFC-50 50 Ω Choke Balun, Assembled.....**$119.95**

COM-CFC-50K 50 Ω Choke Balun, Kit.....**$79.95**

COM-CFC-75 75 Ω Choke Balun, Assembled.....**$123.95**

COM-RFB-160 RF Choke Bead Kit, 160M.....**$95.95**

COM-RFB-80 RF Choke Bead Kit, 80M.....**$98.95**

COM-RFB-40 RF Choke Bead Kit, 40 and 30M.....**$79.95**

COM-RFB-20 RF Choke Bead Kit, 20, 10 and 15M.....**$44.95**

COMTEK SYSTEMS

Accessories

DXE-RADP-3 Stainless Steel Radial Plate with 20 Bolt Sets.....**$57.95**

DXE-SSVC-2P V-Saddle Clamp, Fits 1" to 2" Tube.....**$12.45**

DX ENGINEERING

## Glass Antenna Insulators

Operators have relied on glass insulators since the dawn of radio because they're a proven and effective way to improve the efficiency of your wire antenna—regardless of its configuration. DX Engineering's new Glass Antenna Insulators have an antique look, yet handle a significant amount of stress without breaking, making them well-suited to most wire antenna and support rope applications.

DXE-TGI-2 Glass Antenna Insulators, Pair ..... $15.95

## Antenna Support Rope

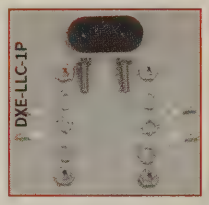
STI

Synthetic Textile Industries' double-braided Dacron/Polyester ropes are not weakened by decay or mildew, and provide excellent resistance to abrasion. The color-sealed, black polyester yarn used in the braided jacket also protects the cord from degradation caused by ultraviolet light. It is available in a variety of diameters and lengths.

| Part Number | Diameter | Break Strength | Length | Price |
|---|---|---|---|---|
| SYN-DBR-94-100 | 3/32" | 260 Lbs. | 100' | $10.95 |
| SYN-DBR-94-1000 | 3/32" | 260 Lbs. | 1,000' | $65.95 |
| SYN-DBR-125-100 | 1/8" | 420 Lbs. | 100' | $13.95 |
| SYN-DBR-125-1000 | 1/8" | 420 Lbs. | 1,000' | $92.95 |
| SYN-DBR-187-100 | 3/16" | 770 Lbs. | 100' | $18.95 |
| SYN-DBR-187-350 | 3/16" | 770 Lbs. | 350' | $51.95 |
| SYN-DBR-187-500 | 3/16" | 770 Lbs. | 500' | $72.95 |
| SYN-DBR-187-1000 | 3/16" | 770 Lbs. | 1,000' | $133.95 |
| SYN-DBR-312-100 | 5/16" | 1,790 Lbs. | 100' | $25.95 |
| SYN-DBR-312-500 | 5/16" | 1,790 Lbs. | 500' | $113.95 |
| SYN-DBR-437-500 | 7/16" | 2,150 Lbs. | 500' | $227.95 |

DX ENGINEERING

## 300 and 450 Ω Ladder Line




DX Engineering's 300 and 450 Ω Ladder Line is rated for full legal transmit power. The 300 Ω ladder line is constructed of 18-gauge conductors with 19 strands of copper clad steel wire, resulting in a velocity factor of 0.88. It is ideal for use with multi-band dipoles or other multi-band antennas.

The 450 Ω ladder line is constructed of 16-gauge conductors with 19 strands of copper clad steel wire. It is ideal for use with our Reversible Beverage Antenna system, DXE-RBS-1P. The wire makes the line strong enough for long horizontal runs between supports. Actual impedance is a nominal 400 Ω with a nominal velocity factor of 91%.

DXE-LL300-1C 300 Ω Ladder Line, 100' ..... $48.95
DXE-LL300-2C 300 Ω Ladder Line, 200' ..... $98.95
DXE-LL300-3C 300 Ω Ladder Line, 300' ..... $134.95
DXE-LL300-4C 300 Ω Ladder Line, 400' ..... $189.95
DXE-LL300-5C 300 Ω Ladder Line, 500' ..... $184.95
DXE-LL450-5C 450 Ω Ladder Line, 500' Spool ..... $279.95
DXE-LL450-CTL 450 Ω Ladder Line ..... per foot $0.65
DXE-LL450-1K 450 Ω Ladder Line, 1,000' Spool ..... $529.95
DXE-LL-INS Ladder Line Supports for 450 Ω line, 25 Per Pack ..... $13.95
DXE-LLC-1P Ladder Line Coupler for 450 and 300 Ω Ladder Line ..... $8.95

## Center Insulator for Multi-Band Doublets with SO-239

hy-gain

This weatherproof, lightweight, high strength center insulator is used for connecting coaxial feedline to a doublet-type antenna. The insulator can be hung from a supporting mast. It has an SO-239 connector to attach to coaxial cable with a matching PL-259 connector.

HGN-C-1C Center Insulator for Multi-Band Doublets ..... $29.95

## Wire Antenna Hanging Tools

EZ HANG Antenna Launcher & Cable Installer

No more ladders, no more climbing trees—these durable wire antenna launching tools make it easy for you to hang your antenna from the safety of terra firma. In addition to heavy lead weights, they use tennis ball weights; so you won't damage anything if your aim is a bit off.

The Square Shot has a 300 foot spool of 10-pound-test line, an EZ winder with 500 feet of 155-pound-test line, and an easy hang custom band set. The Hyper Shot takes everything included with the Square Shot, and dials up enough power to clear trees up to 100 feet high! Make sure to check local laws regarding slingshots before you pull back the band on an EZ Hang kit.

EZH-EZHSSK1 Square Shot Kit ..... $99.95
EZH-HEZ21 Hyper Shot Kit ..... $104.95

## Antenna Support and Guy Line Ropes

MASTRANT ANTENNA GUYING

Specifically designed for guying and support, Mastrant ropes come in several sizes and strength ratings. They're perfect for wire antennas, supporting Yagi booms and elements, as well as guying verticals and antenna masts. These non-conductive ropes are made from synthetic fibers that won't collect moisture or suffer from UV degradation.

All rope comes in a 328 foot/100 meter roll, and popular selections are now available in 100 foot/30 meter rolls. You can choose from two different rope types: the standard Mastrant-P or the stronger Mastrant-M.

| Part Number | Type | Diameter | Length | Break Strength | Price |
|---|---|---|---|---|---|
| MSG-MP02100 | Mastrant-P | 2mm/.079" | 330' (100M) | 220 Lbs. | $15.95 |
| MSG-MP03031 | Mastrant-P | 3mm/.118" | 100' (31M) | 440 Lbs. | $8.95 |
| MSG-MP03100 | Mastrant-P | 3mm/.118" | 330' (100M) | 440 Lbs. | $24.95 |
| MSG-MP04031 | Mastrant-P | 4mm/.158" | 100' (31M) | 882 Lbs. | $14.95 |
| MSG-MP04100 | Mastrant-P | 4mm/.158" | 330' (100M) | 882 Lbs. | $36.95 |
| MSG-MP05100 | Mastrant-P | 5mm/.197" | 330' (100M) | 1,102 Lbs. | $53.95 |
| MSG-MP06100 | Mastrant-P | 6mm/.236" | 330' (100M) | 1,874 Lbs. | $89.95 |
| MSG-MP08100 | Mastrant-P | 8mm/.315" | 330' (100M) | 2,866 Lbs. | $113.95 |
| MSG-MM02031 | Mastrant-M | 2mm/.079" | 100' (31M) | 529 Lbs. | $14.95 |
| MSG-MM02100 | Mastrant-M | 2mm/.079" | 330' (100M) | 529 Lbs. | $40.95 |
| MSG-MM03031 | Mastrant-M | 3mm/.118" | 100' (31M) | 860 Lbs. | $24.95 |
| MSG-MM03100 | Mastrant-M | 3mm/.118" | 330' (100M) | 860 Lbs. | $67.95 |
| MSG-MM04100 | Mastrant-M | 4mm/.158" | 330' (100M) | 1,984 Lbs. | $135.95 |
| MSG-MM10100 | Mastrant-M | 10mm/.394" | 330' (100M) | 8,818 Lbs. | $666.95 |

DXE-MSG2M-C1

DXE-MSG2M-C2

DXE-MSG2M-C3

DXE-MSG3M-C1

DXE-MSG3M-C2

DXE-MSG3M-C3

DXE-MSG2M-BD

DXE-MSG3M-BD

MASTRANT ANTENNA GUYING New!

## Mastrant Guying Hardware Packs

DXE-MSG2-5M-PL

Properly guying your antenna is critical. That's why DX Engineering has worked with Mastrant's recommendations to assemble hardware packs with perfectly-matched components. These kits are tailor-made to work with Mastrant's guying rope, so you can build a safe, reliable guying system for your wire or vertical antenna.

| Part Number | Kit Type | For Rope Size | Kit Contents | Price |
|---|---|---|---|---|
| DXE-MSG2M-C1 | Coupling Kit | 2mm | 2 Pack of Shackles, Thimbles, Duplex Clips | $12.95 |
| DXE-MSG2M-C2 | Coupling Kit | 2mm | 2 Pack of Carabiners, Thimbles, Duplex Clips | $11.95 |
| DXE-MSG2M-C3 | Coupling Kit | 2mm | 2 Pack of Quick Links, Thimbles, Duplex Clips | $12.95 |
| DXE-MSG3M-C1 | Coupling Kit | 3mm | 2 Pack of Shackles, Thimbles, Duplex Clips | $13.95 |
| DXE-MSG3M-C2 | Coupling Kit | 3mm | 2 Pack of Carabiners, Thimbles, Duplex Clips | $12.95 |
| DXE-MSG3M-C3 | Coupling Kit | 3mm | 2 Pack of Quick Links, Thimbles, Duplex Clips | $14.95 |
| DXE-MSG1-3M-T1 | Tensioning Kit | 1-3mm | 2 Pack of Quick Links and Tensioners | $11.95 |
| DXE-MSG2M-BD | Bull Dog Grips | 2mm | 4 Pack of Bull Dog Grips | $11.95 |
| DXE-MSG3M-BD | Bull Dog Grips | 3mm | 4 Pack of Bull Dog Grips | $12.95 |
| DXE-MSG2-5M-PL | Pulleys | 2-5mm | 4 Pack of Galvanized Steel Pulleys | $13.95 |
| DXE-MSG4-5M-PL | Pulleys | 4-5mm | 4 Pack of Galvanized Steel Pulleys | $13.95 |
| DXE-MSG4-9M-SPL | Pulleys | 4-9mm | 4 Pack of Stainless Steel Pulleys | $27.95 |

DXE-WA-070

DXE-WA-260
(shown as built, sold as a kit.)

DX ENGINEERING

### Ladder-Line Fed Dipole Antennas

The DX Engineering multi-band dipoles are rugged yet lightweight. Each model resonates at the low end of the band specified. They are usable to 30 MHz with a wide range tuner and come complete with the wire elements, ladder feedline, center-T support and end insulators.

- Elements: 14 AWG copper, PVC jacket for flexibility and strength
- Feedline: 100 feet, 18 AWG, 300 Ω ladder line, UV-resistant, 0.88 VF
- Hardware: stainless steel
- Center-T support and end insulators: High impact, UV-resistant material, black
- Power Rating: 1,500 W

| | | |
|---|---|---|
| DXE-WA-260 | Antenna, 260' Long for 160M and Up | **$69.95** |
| DXE-WA-135 | Antenna, 135' Long for 80M and Up | **$59.95** |
| DXE-WA-070 | Antenna, 70' Long for 40M and Up | **$59.95** |

### Premium Copper #14 Insulated Antenna Wire

Use DX Engineering #14 Insulated Antenna Wire to achieve top performance and long-life, trouble-free operation. This insulated copper wire is UV-resistant and lays out easily, unlike the wire that is commonly available at the "big box" stores which coils and kinks. It will last much longer in contact with the environment than bare wire. It is available in pre-cut lengths for easy dipole assembly, or in bulk lengths of 500 and 1,000 feet.

| | | |
|---|---|---|
| DXE-ANTW-75 | 40M & Up, 75' | **$11.95** |
| DXE-ANTW-150 | 80M & Up, 150' | **$23.95** |
| DXE-ANTW-300 | 160M & Up, 300' | **$47.95** |
| DXE-ANTW-500 | Multiple Antennas, 500' | **$85.95** |
| DXE-ANTW-1000 | Multiple Antennas, 1,000' | **$158.95** |

DMN-W735

DIAMOND ANTENNA

DMN-W8010

### Wire Dipole Antennas

Complete kits that get you on the HF bands quickly. They include an SO-239 connector for easy hookup, a center insulator and all necessary wire/cable. You don't need a tuner with these antennas, though some trimming may be required to improve SWR. They handle 1,200 watts.

The W735 Wire Dipole Antenna provides 80 and 40 meter coverage with an 85 foot cable. The W8010 gives you the 80, 40, 20, 15 and 10 meter bands with a 63 foot cable.

| | | |
|---|---|---|
| DMN-W735 | Dual-Band Wire Dipole Antenna | **$119.95** |
| DMN-W8010 | Five-Band Wire Dipole Antenna | **$144.95** |

EAntenna

### Multi-Band Wire Antennas

Since they use multiple parallel wires arranged in a fan-style design, EAntenna calls these antennas "multi-fan" dipoles. The antennas' unique design allows each band dipole to remain separate from the others, which means you can pack multiple wire antennas in the space typically required for one. Each antenna listed below handles full legal limit power.

| Part Number | Bands | Wire Length | Price |
|---|---|---|---|
| EAN-R2010049 | 80, 40M | 88.51' | **$109.95** |
| EAN-R2010048 | 80, 40, 20, 15, 10M | 88.51' | **$149.95** |
| EAN-R2010046 | 40, 20, 15, 10M | 42.31' | **$129.95** |

DX ENGINEERING

New!

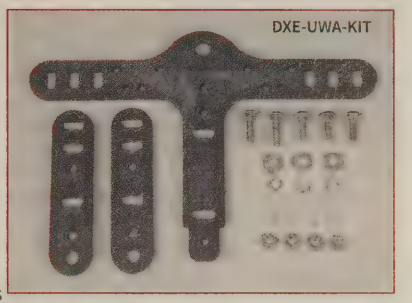
### NVIS Antenna Kit

DX Engineering now makes it easier than ever to use NVIS (Near Vertical Incidence Skywave) techniques for emergency and recreational purposes. Used for decades in military applications and for in-state disaster communications, the ionospheric NVIS mode works at frequencies from 2 MHz to 10 MHz. Sturdy and easy to deploy, the DXE-NVIS-8040 kit is great for camping, QRP, ARES, EMCOMM, SPOTA, and any use where short range HF operation from 80 to 40 meters is preferred. The kit comes with a crossed dipole antenna capable of handling 1,500 watts. The antenna's stranded wires are 14 AWG and stretch 133' and 66'. The maximum support rope size is 5/16". The antenna weighs in at 25 lbs., perfect for taking on the road. Guying is provided by the antenna's four legs.

The kit also includes a 15', 4-section telescopic fiberglass mast collapsible to 4' (DXE-NVIS-MAST); antenna stakes; and complete balun mounting kit (DXE-NVIS-BMB), featuring all-in-one bracket, high-strength poly-resin insulators, DX Engineering end insulators, and stainless steel hardware. A COMTEK COM-BAL-11150T balun is included.

| | | |
|---|---|---|
| DXE-NVIS-8040 | 133'/66' Wire Antenna, 15' Mast, Balun Mounting Kit | **$299.50** |

DX ENGINEERING


DXE-UWA-KIT

### Universal Wire Antenna Kits

Our Universal Wire Antenna (UWA) Kits contain parts to build several antenna types, like single band, multi-band, multi-frequency and folded dipole, doublet and inverted-vee, Windom, off-center fed, Zepp, long wires, rhombic, vee beam and loop antennas.

The kits feature the new EZ-BUILD™ Center-T insulator and end insulators. The insulators' patented design features a serpentine wire grip for insulated DX Engineering Antenna Wire and DX Engineering's high strength, high power 300 Ω ladder line. The serpentine wire connection grip is strong enough to support the antenna wires without looping or wrapping the wire ends. This allows fast and easy field antenna length adjustments without soldering.

The insulators are made of a lightweight, high strength, UV-protected material. The center-T insulator is designed to serve as a feedpoint and strain relief for antennas made with either wire or ladder line, which may be fed with either ladder line or coaxial cable. The center-T insulator can be the main support point for the antenna feedpoint by using the top center hole to attach a support rope. **DXE-UWA-KIT also serves as the mounting and support point for any DX Engineering Balun.**

The DXE-UWA8X-KIT and DXE-UWA213-KIT kits include a new strain relief bracket and P-clamps with neoprene cushions that grip the coaxial cable without deforming it, taking the weight of the hanging cable off of the connector. Each kit also includes crimp-on ring terminals for ladder line and antenna wire, and connection hardware.

| | | |
|---|---|---|
| DXE-UWA-KIT | Universal Wire Antenna Kit | **$23.95** |
| DXE-UWA8X-KIT | Universal Wire Antenna Kit for RG-8X | **$47.95** |
| DXE-UWA213-KIT | Universal Wire Antenna Kit for RG-213 | **$47.95** |
| DXE-UWA-END-KIT | End Insulators, Package of 8 | **$11.95** |

BUCKMASTER

### Multi-Band Off-Center Fed Dipole HF Antennas

Buckmaster OCF Multi-Band HF Antennas offer exceptional performance with anvil-like reliability. The efficient off-center fed dipole design, and high-quality components, deliver years of trouble-free operating.

BMT-DX-OCF

The permanently sealed center insulator houses either a 300 or 3,000 watt potted balun, secured by a 1/4 inch stainless steel eyebolt. Each antenna fully assembled. DX Engineering carries the support rope and coaxial cable you need to complete your installation.

| Part Number | Bands | Wire Length | Power Rating (watts) | Price |
|---|---|---|---|---|
| BMT-DX-OCF-40 | 40, 20, 10 & 6 Meters | 68' | 300 | **$225.95** |
| BMT-DX-OCF | 75/80, 40, 20, 17, 12, 10 & 6 Meters | 135' | 300 | **$229.95** |
| BMT-DX-OCF-160 | 160, 75/80, 40, 20, 17, 12, 10 & 6 Meters | 270' | 300 | **$302.95** |
| BMT-DX-OCF-HP40 | 40, 20, 10 & 6 Meters | 68' | 3,000 | **$326.95** |
| BMT-DX-OCF-HP | 75/80, 40, 20, 17, 12, 10 & 6 Meters | 135' | 3,000 | **$332.95** |
| BMT-DX-OCF-HP160 | 160, 75/80, 40, 20, 17, 12, 10 & 6 Meters | 270' | 3,000 | **$402.95** |

## Horizon Multi-Band Wire Antennas

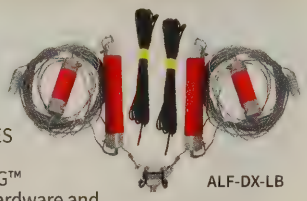
Bushcomm HF Antenna Systems

Designed for simple, efficient operation on multiple HF bands, these antennas use a relativity short length of wire to allow for a compact installation. Though these deliver good bandwidth right out of the box, Bushcomm recommends the use of a separate tuner to achieve maximum performance. Stainless steel wire is used for corrosion resistance. These antennas handle 200 watts on SSB. For the Center-Fed models, you can support either end for a traditional layout, but they work very well in an inverted V setup too.

| Part Number | Bands | Length | Bandwidth at 40M | Design | Price |
|---|---|---|---|---|---|
| BCM-HORIZON-2040 | 20, 40M | 43' | 150 kHz | Center Fed | $115.95 |
| BCM-HORIZON-4080 | 40, 80M | 79' | 150 kHz | Center Fed | $139.95 |
| BCM-HORIZON-3B | 10, 20, 40M | 40' | 100 kHz | End Fed | $145.95 |

ALPHA DELTA COMMUNICATIONS, INC.

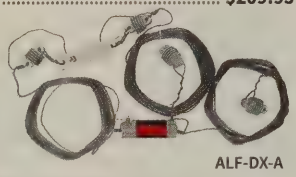
## Multi-Band Dipole Wire Antennas


ALF-DX-LB

Alpha Delta's complete resonant antennas include a DELTA-C center insulator and end insulators, ISO-RES coils and separate wires for different bands. All wires are attached to the center insulator. An SEP ARC-PLUG™ static electricity protector is built in. Stainless steel hardware and 12-gauge solid copper wire ensure long life. Antennas are shipped fully assembled. No antenna tuners are necessary, except for 15 meter band with DX-CC.

| | | |
|---|---|---|
| ALF-DX-CC | 80-10 Meter Parallel Dipole, 82' | $179.95 |
| ALF-DX-DD | 80-40 Meter Single Dipole, 82' | $149.95 |
| ALF-DX-EE | 40-10 Meter Parallel Dipole, 40' | $159.95 |
| ALF-DX-LB | 160-80-40 Meter Single Wire Dipole, 100' | $179.95 |
| ALF-DX-LBPLUS | 160-10 Meter Parallel Dipole, 100' | $209.95 |

## Multi-Band Sloper Wire Antennas


ALF-DX-A

These antennas provide good DX performance for limited space installations by combining the DX firepower of a quarter-wave sloper with the wide bandwidth of a half-wave dipole antenna. A built-in SEP ARC-PLUG™ static electricity protector is included. Because the installation of sloper antennas depends on your available mounting circumstances, the use of a wide range antenna tuner is recommended for best performance.

| | | |
|---|---|---|
| ALF-DX-A | Twin Sloper, 160/80/40 Meter, 127' | $119.95 |
| ALF-DX-B | Sloper, 160/80/40/30 Meter, 60' | $129.95 |

ALPHA DELTA COMMUNICATIONS, INC.

## Single Band Full Size Dipole Antennas

ALF-DX-80

To get on the 80, 40 and 20 meter bands quickly, look to these antennas from Alpha Delta. They're pre-tuned for the lowest indicated frequency, but you can trim them to tune for any frequency from 14-30 MHz. They come fully assembled and include a Delta-C center insulator with built-in SEP ARC-PLUG™ static electricity protector, high strength copper wire and stainless steel hardware. They will easily handle full legal power.

| | | |
|---|---|---|
| ALF-DX-80 | Single Band Full Size Dipole, 80M, 134' | $79.95 |
| ALF-DX-40 | Single Band Full Size Dipole, 40M, 67' | $79.95 |
| ALF-DX-20 | Single Band Full Size Dipole, 20M, 34' | $79.95 |

## SWL Antennas

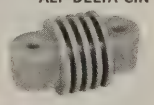
ALF-SEP

Fully assembled for fast, easy installation, these antennas are optimized to provide the best broadband receiving performance from the AM broadcast band through 30 MHz. The antennas include ISO-RES inductors, solid copper wire elements and the exclusive DELTA-C center insulator with a built-in SEP ARC-PLUG™ static electricity protector. Stainless steel hardware and 12-gauge solid copper wire ensure long life

| | | |
|---|---|---|
| ALF-DX-SWL | SWL Sloper Antenna, 60' | $139.95 |
| ALF-DX-ULTRA | SWL Parallel Dipole, 80' | $179.95 |
| ALF-SEP | Replacement ARC-PLUG Protector | $15.95 |

## Antenna Insulator Kit with Static Discharge

ALF-DELTA-C

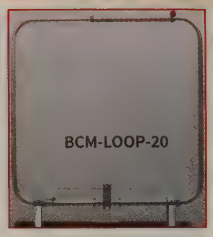

ALF-DELTA-CIN

This kit contains one center insulator, antenna connection hardware, one ARC-PLUG static electricity protector and two end insulators. The antenna hardware is molded of Deltalloy™, an extremely tough and durable plastic specifically blended to withstand sunlight and extreme weather conditions. An SO-239 connector is provided for direct connection to your coaxial cable. A ladder line balanced feedline may be connected directly to the dipole wire ends.

| | | |
|---|---|---|
| ALF-DELTA-C | Antenna Insulator Kit | $29.95 |
| ALF-DELTA-CIN | Replacement End Insulator | $2.95 |

## Horizon Loop Antennas

Bushcomm HF Antenna Systems




Capitalizing on the popularity of HF magnetic loops, Bushcomm's two new Horizon Loops are a great solution for HF operation in a limited space. Whereas many popular magnetic loop models are receive only, these antennas actually allow tight-band transmit capability. Reception is characteristically quiet and transmission is remarkably efficient. They feature a durable, yet lightweight, aluminum loop and come with installation hardware. Horizon Loops handle 125 watts PEP.

| | | |
|---|---|---|
| BCM-LOOP-20 | Horizon Loop, 20-10M, 29" OD | $289.95 |
| BCM-LOOP-40 | Horizon Loop, 40-10M, 54" OD | $319.95 |

Bushcomm HF Antenna Systems

**TA Series Dipole Antennas** - Like the "do-it-yourself" approach? These kits contain stainless steel antenna wire, hardware, insulators, and mounting supports, so you can build your own antenna tailored to your exact operating needs. Cut them to length to open up more band-specific performance. Better still, you can get these high-performing antennas at a very attractive price. They handle 250 watts PEP and include an SO-239 feedpoint connector.

| Part Number | Band | Wire Length | Price |
|---|---|---|---|
| BCM-TA-160 | 160M | 260' | $105.95 |
| BCM-TA-80 | 80M | 126' | $105.95 |
| BCM-TA-40 | 40M | 66' | $85.95 |
| BCM-TA-20 | 20M | 33' | $69.95 |

CHAMELEON™ ANTENNA

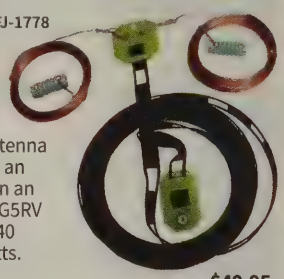
## Windom 40 Antenna

Designed for portable HF operation, Chameleon Antenna's 40 Windom delivers tuner-free performance on the 40, 20 and 10 meter bands. Additional band coverage between 40-6 meters is also possible with the proper tuner. It handles 250 watts. The antenna is lightweight, easy to set up and comes bundled in a canvas bag, making it a smart choice for use in the field.

| | | |
|---|---|---|
| CHA-WINDOM-40 | Windom 40 Antenna | $164.95 |

MFJ

## G5RV All-Band HF Antenna


MFJ-1778

The world-famous G5RV antenna is a multi-band center-fed dipole with a 1,500 watt capacity. Designed as a 3/2-wavelength antenna for 14 MHz, it provides reasonable performance on many other bands. The antenna covers all bands from 160 to 10 meters when used with an antenna tuner. At 102 feet long, the G5RV is shorter than an 80 meter dipole. At 52 feet long, the MFJ-1778M Junior G5RV Antenna is half the size of the MFJ-1778 yet still covers 40 through 10 meters with tuner. It also handles 1,500 watts.

| | | |
|---|---|---|
| MFJ-1778 | G5RV All-Band HF Antenna | $49.95 |
| MFJ-1778M | G5RV Junior Antenna | $44.95 |

## OCFD 40/20/10/6 Meter Dipoles

CAD designed and engineered for low SWR, high efficiency, wide bandwidth and frequency agility on all four of Amateur Radio's most interesting DX bands. Cut to length and preassembled; just connect your feedline. They're lightweight and easy to install.

| | | |
|---|---|---|
| MFJ-2010 | OCFD UltraLite Dipole, 300 Watts | $59.95 |
| MFJ-2012 | OCFD PowerLite Dipole, 1.5 kW | $79.95 |

## Dipole Antennas

Choose a Dipole Antenna from MFJ, and get effective yet reliable coverage in an antenna that's easy to use. Check out MFJ's lineup and select the dipole antenna that best suits your needs, and you can always visit DXEngineering.com for more specs.

| Part Number | Band(s) | Tuner Required? | Notes | Wire Length | Price |
|---|---|---|---|---|---|
| **Multi-Band Dipoles** | | | | | |
| MFJ-1779B | 80/40M | No | Trim to Length | 142' | $44.95 |
| MFJ-2014 | 75/40M | No | Power-Lite | 122' | $99.95 |
| MFJ-17754 | 40/20M | No | Dual-Band | 42' | $59.95 |
| MFJ-1779C | 20-6M | No | Trim to Length | 35' | $29.95 |
| **Portable Dipole with Telescopic Whips** | | | | | |
| MFJ-2299 | 20-6M | No | FM Broadcast | 34' Max. | $129.95 |

### F-Loop and P-Loop 2.0 Antennas

CHAMELEON™ ANTENNA

Chameleon took its popular F- and P-Loop antennas and made them lighter, stronger, and more rugged. They retain a compact 3' diameter, and boast the same performance and versatility. These made-in-the-USA HF loops can be set up and installed in under three minutes, and are very easy to tune. They work equally well at home, or in a base or portable setup. A handy travel bag is included.

CHA-F-LOOP-2-0

The radiator consists of 12' of RG-58A coaxial cable with a built-in choke to suppress RFI. The "Plus" edition of the F-loop antenna features rugged, rigid aluminum radiator sections instead of coaxial cable.

For directional performance, Chameleon makes a handy portable Remote Tuner and Rotator package. It has removable tripod legs and can be set up in about 15 minutes. The system includes a remote control and 20 feet of control wire. Powered by a 9 volt battery, the package gives you the power to easily peak or null out signals.

| | | |
|---|---|---|
| CHA-F-LOOP-2-0 | F-Loop 2.0 Portable Antenna, 80-10M | **$399.95** |
| CHA-FLOOP-PLUS20 | F-Loop 2.0 Plus Portable Antenna, 80-10M | **$494.95** |
| CHA-RT-RR | Remote Tuner/Rotator for F-Loop 2.0 Plus | **$268.95** |
| CHA-P-LOOP-2-0 | P-Loop Portable Antenna, 40-10M | **$494.95** |

### NVIS HF Antenna Base and Elements

Maximize the capabilities of your HF mobile by tuning quickly across the bands (including MARS and CAP frequencies). The base has a built-in broadband 5:1 impedance matching transformer to facilitate efficient tuning.

The base can be configured as an end-fed stationary antenna with the 30' of supplied wire or converted to a mobile installation using one of the separate elements sold below. As a wire antenna, it covers 160-6 meters and can handle 800 W SSB/250 W CW. Mobile coverage is 80-10M. The base is waterproof and has a 3/8"-24 mount.

CHA-HYBRID NVIS HF Antenna Base ..... **$209.95**

### EMCOMM II Portable HF Antenna

Tailor-made for first-responders, this rugged 60' wire antenna delivers excellent 160-6M coverage. Add your external tuner and it makes a great backup or portable HF antenna for your station. It handles 500 watts PEP. The antenna comes with 60' of antenna wire and a waterproof matching box.

CHA-EMCOMM-II EMCOMM II Portable HF Antenna ..... **$114.95**

### HF Skyloop Base Antenna

Lusting after excellent 80-6 meter coverage, but face a strict Home Owners Association or property restriction? Here is your solution. The Skyloop is a 250' wire antenna that can handle 1,000 watts PEP. It's compact and durable enough to be deployed without hassle, and its integrated impedance-matching transformer allows you to tune for excellent broadband performance. Add a wide-range antenna tuner and you can operate from 3.5 to 54 MHz without constantly going outside to adjust your antenna. It includes the matching transformer, 250' of antenna wire, a pair of isolation loops, a trio of insulators and a carabiner to hook it all together.

CHA-SKYLOOP HF Skyloop Base Antenna ..... **$178.95**

### Jaw Mount

Here's a quick, easy way to rapidly deploy your vertical mast. It's got a 3/8"-24 threaded mount on one end and a set of steel jaws on the other. The jaws will clamp securely on 3/4" to 2" OD tubing. The mount works in a vertical or horizontal orientation and will handle 250 watts PEP.

CHA-JAWMOUNT Jaw Mount ..... **$39.95**

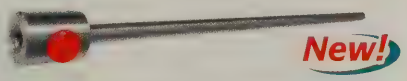
### MPAS Portable HF Antenna

New!

Consisting of a portable base, 60' of wire, a 10' collapsible whip and a clamp-style mount, the MPAS is one of the most versatile and portable HF antennas on the planet. It covers HF and 6 meters, and requires no adjustment when used with a wide range antenna tuner. It can also be configured for NVIS operation. The MPAS handles up to 100 watts (SSB). The MPAS is the ideal antenna for the camper, EMCOMM operator, or portable enthusiast who needs full HF coverage without lugging a ton of gear.

CHA-MPAS MPAS Portable HF Antenna ..... **$314.95**

CHAMELEON™ ANTENNA



New!

### Spike Mount

Easily "plant" a 3/8"-24 stud mount into the ground for your portable antenna. This stainless steel mounting solution from Chameleon even features a thumb screw for using a counterpoise system. Please note that it requires an antenna with a separate feed point.

CHA-SPIKE-MOUNT Spike Mount ..... **$50.00**

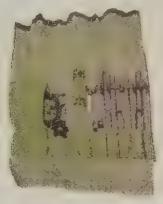
Bushcomm HF Antenna Systems

### BA Series Monoband Dipole Antennas

Made with high-strength braided stainless steel wire, these monoband dipoles are rugged and durable. When mounted in an inverted V configuration, these antennas have a relatively compact footprint, so they're a great solution for portable and small-space setups. Each antenna comes with a balun and enough nylon rope to complete the installation. The antennas handle 150 watts.

| | | |
|---|---|---|
| BCM-BA-40B | BA Series Monoband Dipole Antenna, 40 Meters | **$129.95** |
| BCM-BA-80B | BA Series Monoband Dipole Antenna, 80 Meters | **$145.95** |

### Portable Mast Kit



Get your temporary wire antenna up in the air quickly. This kit consists of a roughly 16' mast, broken in down into eight compact sections. The mast is held together with rugged cord, and can be easily guyed with the included stakes and guy line. The whole kit comes bundled in a durable field bag.

BCM-BU00012 Portable Mast Kit ..... **$559.95**

### Multi-Wire Broadband Dipole Antennas

As Bushcomm's flagship models, these Multi-Wire Dipoles offer an extraordinary blend of performance, reliability, and ease of use. Installed at 65', you can expect gain up to 5 dBi. The antennas handle 60 watts (cont.) and 130 watts (PEP), and will withstand winds up to 130 mph. These are highly efficient antennas that can suit a wide range of installation setups. Depending on the radio, these antennas won't require a tuner.

Bushcomm also makes a potent two-wire folded dipole as a compact alternative to larger models, suitable for portable and EMCOMM stations. The FD-100 handles 125 watts and delivers an SWR better that 2.5:1.

| | | |
|---|---|---|
| BCM-BU00934 | 9-Band Multi-Wire Dipole, 89', 80-10 Meters | **$439.95** |
| BCM-BU00585 | 10-Band Multi-Wire Dipole, 177', 160-10 Meters | **$689.95** |
| BCM-FD-100 | 9-Band Two-Wire Folded Dipole, 88.5', 80-10 Meters | **$379.95** |

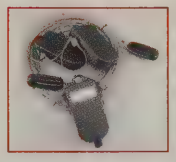
### SWE Series Broadband End-Fed Antennas

Very similar to SWC Series Dipoles, Bushcomm's Broadband End-Fed Antennas are available either as a base station antenna, or bundled with a quick deployment kit suitable for portable and EMCOMM operation. The deployment kits include a grounding clamp, RG58 coaxial cable, ground stake, nylon cord, throw weight, and snap hooks.

Each 89 foot (79' wire, 10' ground) antenna covers 80-10M and, depending on the radio, doesn't require a tuner. The antennas come with a balun. SWE-100P also includes a handy winder tool that makes antenna deployment and storage easy.

| Part Number | Antenna Wire Type | Deployment Kit | Price |
|---|---|---|---|
| BCM-SWE-100 | 7-Strand | Antenna Only | **$279.95** |
| BCM-SWE-100P | 49-Strand "Soft Stainless" | Yes, with Winder | **$319.95** |

Bushcomm HF Antenna Systems

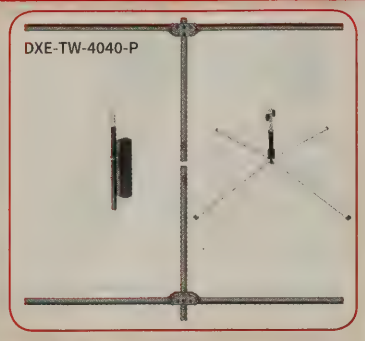


BCM-SWC-100C

### SWC Series Broadband Dipole Antennas

Perfect when you need HF coverage without a lot of hassle, these Broadband Dipoles are built with stainless steel antenna wires and hardware for excellent outdoor durability. These antennas are typically under 2.5:1 SWR across their range. A tuner may be required on some frequencies.

| Part Number | Bands | Coverage | Power | Length | Price |
|---|---|---|---|---|---|
| BCM-SWC-100C | 9 | 80-10M | 125 W PEP | 157' | **$399.95** |
| BCM-SWC-100CE | 9 | 80-10M | 250 W PEP | 197' | **$459.95** |
| BCM-SWC-100S | 8 | 60-10M | 125 W PEP | 112' | **$295.95** |
| BCM-SWC-100E | 9 | 80-10M | 125 W PEP | 197' | **$395.95** |




DX ENGINEERING

### *TransWorld Antenna Packages*

If you enjoy portable HF operation, but don't enjoy lugging around a massive antenna, you should check out the TransWorld Antenna line. These antennas are small and portable, yet boast exceptional performance and durability. TransWorld Antennas are now DX Engineering products, so they're built to the same precision standards that made TransWorld Antenna a household name for HF enthusiasts.

The DX Engineering TransWorld Antenna is essentially a basic structure consisting of top, bottom and tee sections with interchangeable Array Box Center Sections that you can purchase separately for the other bands you want. There are a ton of options; to make selecting the right antenna setup easier, we've created these handy packages.

**5-Band Explorer**

This combo delivers excellent 20, 17, 15, 12 and 10 meter coverage with manual bandswitching. It includes a portable Quadrastand, basic antenna structure, and a handy travel bag.

DXE-TW-2010L-P 5-Band Explorer Package ..... **$624.80**

**5-Band Adventurer**

Similar to the 5-Band Explorer with the addition of automatic bandswitching. The travel bag is available separately.

DXE-TW-2010-P 5-Band Adventurer Package..... **$694.80**

**Band-Specific Solo Explorer**

This monoband antenna system gives you an impressive presence on the 40 meter band. It's an extremely portable package, and comes with quadrastand and basic antenna structure components. Solo Explorers are available for the 80, 60, 40 and 30 meter bands; visit DXEngineering.com to see all the HF options.

DXE-TW-4040-P 40 Meter Solo Explorer Package ..... **$544.80**

**5-Band Globetrotter**

Though it's a great portable antenna, the TransWorld Antenna is actually perfect for stealthy home installation too, when paired with the TransWorld Permanent Mounting Pole that's included in this package. Like the 5-Band Adventurer, the Globetrotter features 20-10M coverage with automatic bandswitching.

DXE-TW-2010P-P 5-Band Globetrotter..... **$629.80**

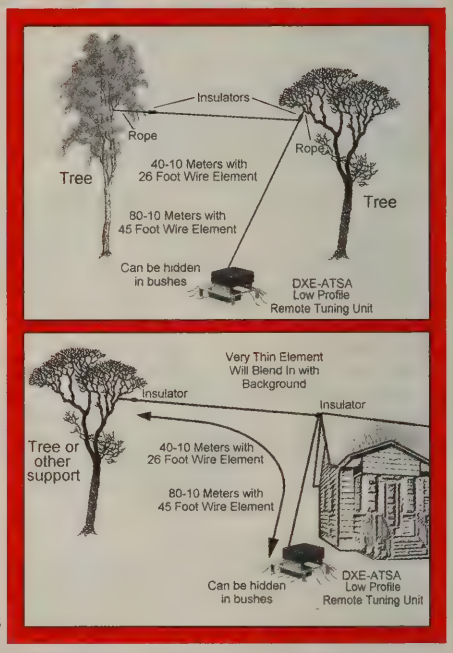
### *HF in Five Minutes? See it in DXEngineering.com's Video Library!*

We put together videos on a lot of our products so you can see them in action. Want proof that a TransWorld Antenna can get set up in five minutes? Watch DX Engineering team member Cory W3CDG make it happen. Plus you can find dozens of more product reviews and demonstration videos online. Visit the "Tech Info & News" section of DXEngineering.com and then look for the video library link to the left of the webpage.

DX ENGINEERING

### *Auto Tuned Stealth Antenna (ATSA)*

**Great for EMCOMM—Assemble and Deploy in Minutes!**




Do you live in an area where antennas are not allowed? DX Engineering has designed a complete antenna system that allows Amateur Radio operators living under the shadow of HOA-controlled areas to get on the air easily. Even with a short 26 foot wire antenna, you can typically be on the air on all bands 40 meters and up. With only 45 feet of wire you can be on all bands from 80 through 10 meters! That's because the unique ATSA MatchBoxx™ module lets you use almost any length wire—no more "forbidden" lengths as with other end-fed systems.

Most small, physically short antennas exhibit narrow bandwidth, limiting your operating frequency range on the lower bands to 50 to 100 kHz with acceptable SWR. The ATSA's integral auto tuner always delivers the lowest possible SWR at any operating frequency with no operator adjustments necessary. Just change bands and the ATSA antenna will follow you!

The very low profile Remote Tuning Unit [RTU] is easily hidden, even in small bushes or shrubs. Just "plant" the RTU with supplied spikes and lay out the minimum length radials. The only thing visible is the wire antenna element, which can be made from small diameter wire for a near-zero visual impact. You can further camouflage the RTU with a plastic boulder or other items available at most landscaping stores.

The DX Engineering ATSA system is completely self-contained; even the required 12 Vdc power is carried by the coax. The ATSA will automatically match your coax to the antenna at any HF frequency within seconds. The complete system includes the RTU, stainless steel radial plate and hardware, radial wire, antennas wire, and two insulators. It's everything you will need to get on the air and operating right under their noses.

- Automatic bandswitching—tunes for lowest SWR
- Handles 200 watts SSB/CW
- Connect 12 Vdc power and RF through single coax feedline

DXE-ATSA-1 ATSA Multi-Band HF Antenna System..... **$539.95**

DXE-SA80-AOK Stealth Antenna 80M Tuning Coil Add-On Kit ..... **$99.95**

Bushcomm HF Antenna Systems

### *Horizon 6.7 HF Dipole Antenna*

Here's an easy-to-assemble rigid dipole that's great for small, permanent installations. It features elements made from telescoping aluminum that are drawn, not cast, to make them flexible. That means they're resilient to wind and avian conventions. It's only about 22 feet wide, yet delivers impressive coverage from 80-6 meters. An antenna tuner is required.

BCM-BU01097 Horizon 6.7 HF Dipole Antenna..... **$279.95**

DX ENGINEERING

### Automatic Band-Pass Filter

Enjoy ultra-quiet reception and eliminate out-of-band emissions with the new DXE-419 Automatic Band Pass Filter. You can select from one of six band-pass filters with the simple push of a front-panel button.

DX Engineering's Automatic Band-Pass Filter comes preloaded with filters for the 160, 80, 40, 20, 15 and 10 meter bands. With over 40 dB of stop-band rejection, each filter effectively removes unwanted and interfering noise and signals from all but the single band you have selected.

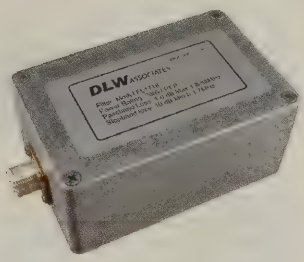
Having multiple filters in one box means you can quickly switch bands without the hassle of changing components in your signal path. That makes the DXE-419 an excellent choice for the contester who needs to move quickly across the most popular HF bands.

The 50 Ω DXE-419 band pass filter handles over 100 watts key-down RF and features SO-239 input and output connectors. When operated with less than 1.5 VSWR at the band-pass filter port, it will tolerate up to 200 watts transmit power. Insertion loss is a mere 0.25 dB at 30 MHz.

Internal band-switching relays and selection LEDs are powered by 13.8 Vdc via the rear panel 2.1mm power connector. A power supply is available separately.

DXE-419 Automatic Band-Pass Filter ..... **$699.95**

DXE-PSW-12D1A Power Supply for DXE-419, 13.8 Vdc @ 1A ..... **$19.95**

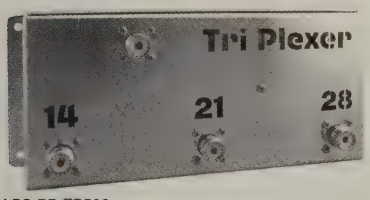


DLW ASSOCIATES

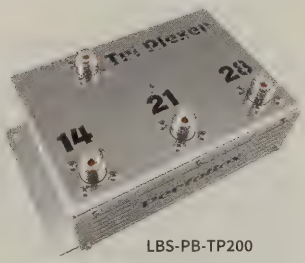
### AM Broadcast Band Brick-Wall High Pass Filter

Live near a commercial AM station? Here's an effective way to combat its inference. Below 1.7 MHz, the filter hits unwanted signals with over 40 dB of attenuation. And it's virtually unnoticeable on the HF bands—there's less than 0.85 dB of loss with a SWR under 1.2:1. The filter is optimized for 50 Ω and installs between your radio and antenna (or amplifier/tuner). It handles 200 watts.

DLW-FL1718 AM Broadcast Band Brick-Wall High Pass Filter..... **$195.00**




LBS-PB-TP500




LBS-PB-TP200

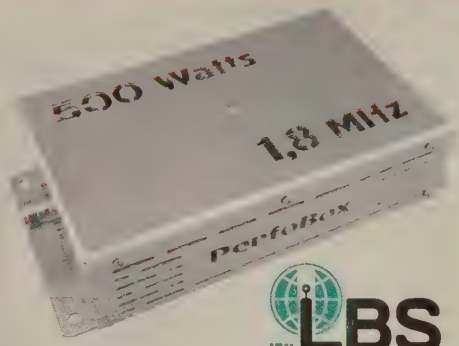
LBS LOW BAND SYSTEMS

### HF Multiplexers

Building a multi-op station? You can use Low Band Systems' Multiplexers to connect multiple radios to a single multi-band antenna, allowing each radio to operate a different band simultaneously. Not only does that reduce the equipment installation hassle, you'll save a ton of money by not having to buy extra antennas and coax cable. Insertion loss is negligible too, typically less than 0.2 dB and each radio will receive 35 dB of rejection from off-band signals. The multiplexers provide a VSWR less than 1.2:1 and work with 50 Ω feedlines. They're an ingenious solution for multi-op contesting, DXing and Field Day!

It's important to note that these multiplexers simply split the RF signal, you'll still need to install the appropriate band pass filters. Appropriate band pass filters found in the adjacent column.

| Part Number | Type | Band Ports | Power Handling | Price |
|---|---|---|---|---|
| LBS-PB-DP500-357 | Duplexer | 80M & 40M | 500 W ICAS | $209.95 |
| LBS-PB-DP5001835 | Duplexer | 160M & 80M | 500 W ICAS | $209.95 |
| LBS-PB-DP200-357 | Duplexer | 80M & 40M | 200 W ICAS | $169.95 |
| LBS-PB-DP2001835 | Duplexer | 80M & 160M | 200 W ICAS | $169.95 |
| LBS-PB-TP1500 | Triplexer | 20M, 15M & 10M | 1,500 W ICAS | $379.95 |
| LBS-PB-TP500 | Triplexer | 20M, 15M & 10M | 500 W ICAS | $269.95 |
| LBS-PB-TP200 | Triplexer | 20M, 15M & 10M | 200 W ICAS | $209.95 |
| LBS-PB-QP1500 | Quadplexer | 40M, 20M, 15M & 10M | 1,500 W ICAS | $519.95 |
| LBS-PB-QP500 | Quadplexer | 40M, 20M, 15M & 10M | 500 W ICAS | $319.95 |
| LBS-PB-QP200 | Quadplexer | 40M, 20M, 15M & 10M | 200 W ICAS | $259.95 |




### HF Transmit Band Pass Filters

These high-quality, multi-stage units limit the RF to a single band, effectively eliminating the RF inference issues multi-radio contesters experience when using dedicated monoband stations. They're also extraordinarily valuable if your Field Day setup includes several monoband radio operations.

LBS LOW BAND SYSTEMS

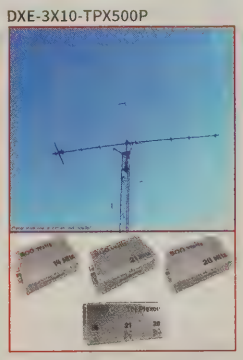
Low Band Systems makes these filters as a complement to its high performance multiplexers, but they're compatible with other manufacturer's multiplexers as well. The filters deliver the critical isolation demanded by each multiplexer's band input. Installed in optimal conditions, users can experience up to 80 dB of isolation between all connected transceivers, regardless of the operating band.

| Part Number | Band | Power Rating | Price |
|---|---|---|---|
| LBS-PB-F200-1-8 | 160M | 200 Watts | $129.95 |
| LBS-PB-F200-3-5 | 80M | 200 Watts | $129.95 |
| LBS-PB-F200-7 | 40M | 200 Watts | $129.95 |
| LBS-PB-F200-10 | 30M | 200 Watts | $129.95 |
| LBS-PB-F200-14 | 20M | 200 Watts | $129.95 |
| LBS-PB-F200-18 | 17M | 200 Watts | $129.95 |
| LBS-PB-F200-21 | 15M | 200 Watts | $129.95 |
| LBS-PB-F200-24 | 12M | 200 Watts | $129.95 |
| LBS-PB-F200-28 | 10M | 200 Watts | $129.95 |
| LBS-PB-F500-1-8 | 160M | 500 Watts | $169.95 |
| LBS-PB-F500-3-5 | 80M | 500 Watts | $169.95 |
| LBS-PB-F500-7 | 40M | 500 Watts | $169.95 |
| LBS-PB-F500-10 | 30M | 500 Watts | $169.95 |
| LBS-PB-F500-14 | 20M | 500 Watts | $169.95 |
| LBS-PB-F500-18 | 17M | 500 Watts | $169.95 |
| LBS-PB-F500-21 | 15M | 500 Watts | $169.95 |
| LBS-PB-F500-24 | 12M | 500 Watts | $169.95 |
| LBS-PB-F500-28 | 10M | 500 Watts | $169.95 |
| LBS-PB-F1500-1-8 | 160M | 1,500 Watts | $359.95 |
| LBS-PB-F1500-3-5 | 80M | 1,500 Watts | $359.95 |
| LBS-PB-F1500-7 | 40M | 1,500 Watts | $359.95 |
| LBS-PB-F1500-14 | 20M | 1,500 Watts | $359.95 |
| LBS-PB-F1500-21 | 15M | 1,500 Watts | $359.95 |
| LBS-PB-F1500-28 | 10M | 1,500 Watts | $359.95 |

DX ENGINEERING

DXE-3X10-TPX200P

DXE-3X10-TPX500P



### Tri-Band HF Antenna and Triplexer Combos

Work the 20, 15 and 10 meter bands, with three different radios, using just a single antenna! We've created a trio of combos built around Low Band Systems' innovative triplexers and band-pass filters. These combos are a perfect setup for Field Day, eliminating the need for extra antennas and coaxial cable. They're cost effective solutions for any portable, multi-station setup. They include the antenna, triplexer and the appropriate 20/15/10M band-pass filters.

| Part Number | Antenna | Power Rating | Price |
|---|---|---|---|
| DXE-3JRS-TPX200P | Hy-Gain 3JRS | 200 Watts | $969.75 |
| DXE-3JRS-TPX500P | Hy-Gain 3JRS | 500 Watts | $1,149.75 |
| DXE-3MK4-TPX200P | Hy-Gain 3MK4 | 200 Watts | $1,079.75 |
| DXE-3MK4-TPX500P | Hy-Gain 3MK4 | 500 Watts | $1,259.75 |
| DXE-3X10-TPX200P | DX Engineering Skyhawk® | 200 Watts | $1,799.95 |
| DXE-3X10-TPX500P | DX Engineering Skyhawk | 500 Watts | $1,979.95 |

DX ENGINEERING

DXE-RR8B-HP

## Remote Antenna Switches

DX Engineering uses a symmetrical design in these switches to ensure excellent reliability and performance. Installation is easy too. Simply use the switch's external control cable connector to attach your CAT-5 cable to the controller in your shack.

These switches provide great SWR and superior port-to-port isolation—better than 60 dB for ALL ports, not just the best port. You'll see 70 dB (HP) and 60 dB (SD) in worse-case scenarios. That's the highest port isolation of all the major-brand coax switches we've tested.

They're fully RF-sheilded with a UV-resistant cover, and have built-in lightning protection. The unused antenna ports can be jumpered for open control line with no disassembly or they can be easily shorted to ground.

**High Performance (HP) and Severe Duty (SD) Options**

The DXE-RR8B-HP uses 16 relays (2 per port) in a star arrangement to provide greater than 70 dB of port-to-port isolation. It is designed to switch coaxial lines in RF systems operating up to 5 kW continuous duty. The DXE-RR8B-SD is the largest switch in the RR8B series, designed to switch coaxial lines in high power RF systems up to 10 kW continuous duty.

**Specifications**

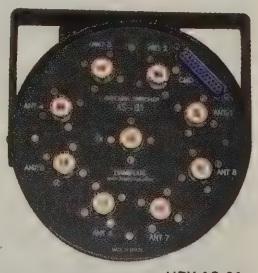
- Sealed RF Relays: 20 amps (HP), 25 amps (SD)
- Power Rating (<2:1 SWR at 30 MHz): 7 kW ICAS/5 kW CCS (HP), 10 kW ICAS/CCS (SD)
- Control Voltage: 10-14 Vdc/100 mA (HP), 10-14 Vdc/160 mA (SD)
- Loss (HP): <0.03 dB below 60 MHz, <0.25 dB below 150 MHz
- Loss (SD): <0.03 dB below 30 MHz, <0.16 dB below 60 MHz
- Impedance: 50 Ω
- Control Line: 8-wire plus ground, #24 up to 1,000' (DXE-CW9S)

DXE-RR8B-SD

## Single-Input 8-Port RF Switches and Console Combos

| | | |
|---|---|---|
| DXE-RR8B-HP | 5 kW Key-Down Switch | $383.95 |
| DXE-RR8B-HP-P1 | 5 kW Key-Down Switch with CC-8A Console | $573.95 |
| DXE-RR8B-HP-P2 | 5 kW Key-Down Switch with EC-8 Console | $508.90 |
| DXE-RR8B-SD | 10 kW Key-Down Switch | $466.95 |
| DXE-RR8B-SD-P1 | 10 kW Key-Down Switch with CC-8A Console | $656.95 |
| DXE-RR8B-SD-P2 | 10 kW Key-Down Switch with EC-8 Console | $591.90 |
| **Accessories** | | |
| DXE-RLY-HP | SPDT 5 kW Sealed RF Relay, Board-Mount | $10.95 |
| DXE-RLY-SD | SPDT DM/DB 10 kW RF Relay, Board-Mount | $23.95 |
| DXE-CW9S | Shielded Control Wire, 9-Conductor Stranded ..... per foot | $0.38 |

HAMPLUS



HPY-AS-81

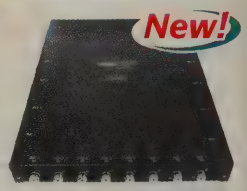
## External Antenna Switch

Simple, basic and rugged, the Hamplus AS-81 Antenna Switch features 8 antenna inputs fed to a single output. A DB-25F connector is provided for easy connection of the control line. Simple 13.8 Vdc control with optional Hamplus Switch Control Console models MBD-8E or RC-12. This switch handles well over full legal limit. All SO-239 (UHF female) inputs connect to ground when not powered. Insertion loss is equal or less than 0.1 dB and the switch boasts 58 dB of port isolation at 30 Mhz. Add a Hamplus AS-21 Switch module to combine two AS-81 switches for an impressive control of up to 16 antennas.

| | | |
|---|---|---|
| HPY-AS-81 | 8 Port External Antenna Switch | $399.95 |
| HPY-AS-21 | Antenna Switch, 1 Input and 2 Output | $199.95 |
| HPY-CC-5M | Connection Cable for AS-81 and AS-21 | $49.95 |

## Antenna Switches

HAMPLUS



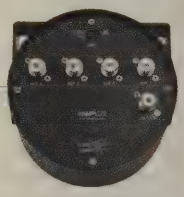

HPY-AS-86F

Hamplus offers these excellent solutions for switching multiple antennas to multiple radios. These antenna switch relay unit models support 8 or 12 antenna inputs and 2, 4 or 6 radio outputs. They cover HF and 6M bands, easily handle full legal limit power, insertion loss is a scant 0.1 dB, and offer impressive port isolation. They allow one radio to access one antenna at a time. For protection, all antennas are grounded when not selected or when the system is powered off. These remote antenna switches are typically operated automatically or manually with the illuminated push-buttons of the MBD-8E, MBD-8F or MBD-12F Smart Antenna Switch Control Units, one at each radio position (described on the adjacent page).

Hamplus offers the RC-12 Manual Control Unit with rotary knob and LEDs to indicate antenna selection. They operate any of the remote antenna switches and can also be used at each radio position. They feature busy net lockout of antennas selected by the other control consoles.

| Part Number | Radio Inputs | Antenna Outputs | Max. SWR | Price |
|---|---|---|---|---|
| HPY-AS-82F | 2 | 8 | 1.7:1 | $749.95 |
| HPY-AS-84F | 4 | 8 | 1.7:1 | $1,395.95 |
| HPY-AS-86F | 6 | 8 | 1.7:1 | $2,195.95 |
| HPY-AS-1202F | 2 | 12 | 1.7:1 | $1,195.95 |
| HPY-AS-1204F | 4 | 12 | 1.7:1 | $2,195.95 |
| HPY-AS-1206F | 6 | 12 | 1.7:1 | $3,295.95 |
| **Control Unit** | | | | |
| HPY-RC-12 | Manual Control Unit for up to 12 Antennas | | | $179.95 |

HAMPLUS



## Four Stack Antenna Switching System

Simultaneously operate up to four antennas in any combination as a single phased array for superior performance over a single antenna. Hamplus' Four Stack System includes the antenna switch relay unit and control console. The console uses straightforward illuminated push-button controls, making it easy to select your desired antenna configurations—you can use any combination of four compatible antennas. The antenna switch relay unit is housed in a rugged enclosure, durable enough for permanent outdoor installation. The Four Stack System handles full legal limit power and covers the HF bands.

HPY-FOUR-STACK MBD Remote Control Unit, for 12 Antennas ..... $899.95

DX ENGINEERING

## CC-8A Deluxe 8-Position Control Console

The CC-8A is a flexible 8-position controller for DX Engineering RR8 Series Antenna Switches or any product that uses a 12/24 Vdc, 1-of-8 or BCD control format. The powdercoated metal housing features an on/off switch, ergonomic selector knob, and eight front-panel LEDs (with adjustable brightness) to indicate switch position. It has a stainless steel base plate and operates from a 12 Vdc or 24 Vdc source.

DXE-CC-8A Deluxe 8-Position Control Console ..... $189.95

## EC-8 8-Position Control Console

The EC-8 is a versatile 8-position controller for DX Engineering RR8A Series Antenna Switches, or any other product that uses a 12/24 Vdc, 1-of-8 control format. The powdercoated metal housing features an on/off switch with green power LED and an ergonomic selector knob with scratchpad areas to mark the switch position function. It has a stainless steel base plate and operates from a 12 Vdc source.

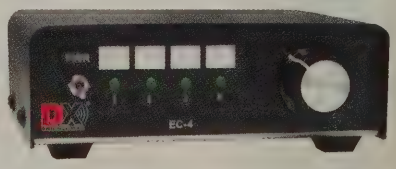
DXE-EC-8 8-Position Control Console ..... $124.95

## EC-4 4-Position Control Console

The DXE-EC-4 is a flexible, four-position controller used to control the DX Engineering Receive Four-Square series or any other product using a four-position (three wire plus ground) BCD control format. It features a powdercoated housing with an ON/OFF switch and green LEDs with scratchpad areas to mark the switch position function. It requires 12 Vdc for operation.

**Additional Features:**

- Stainless steel housing
- Non-skid feet
- Four green position-indicating LEDs
- An internal automatic resettable fuse
- Includes a 2.1mm power plug for +12 Vdc power connection



DXE-EC-4 4-Position Control Console ..... $124.95

HAMPLUS

HPY-AS-603A Front

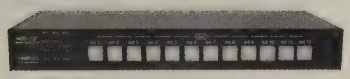
HPY-AS-603A Rear

### Desktop Antenna Switches

Hamplus AS-603 Desktop Manual Switches feature six antenna inputs and three radio outputs for quick, one-at-a-time rotary switch selections.

Hamplus AS-603A Desktop Smart Antenna Switches features illuminated push-buttons indications of six antenna inputs and three radio output selections. Built-in intelligent band decoder and antenna memory allows effortless automatic or manual antenna band switching. The AS-603A is compatible with popular Elecraft, Kenwood, Yaesu and Icom transceivers or any radio equipped with a BCD.

| | | |
|---|---|---|
| HPY-AS-603 | Desktop Antenna Switch | $379.95 |
| HPY-AS-603A | Desktop Smart Antenna Switch | $399.95 |

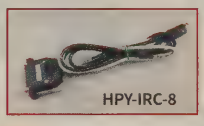


### Smart Antenna Control Consoles

Operate your multi-input, multi-output Hamplus Antenna Switch system using these Smart Antenna Control Consoles, one at each radio position. It doesn't matter whether your transceiver positons are together in a contest station or far apart in separate radio shacks in different rooms! These Memory Band Decoder (MBD) control units connect directly with popular Elecraft, Icom, Kenwood and Yaesu transceivers for antenna automation and easy switching between radios. Illuminated push-buttons and busy LEDs indicate manual or automatic antenna selections from all system controllers. They allow for split operation, using a separate transmit and receive antennas. A simple 'one-radio-per- antenna' interlock system and hot switch safeguards protect your radios and antennas from damage. More importantly, they require no PC or software, and work with all Hamplus rotator and antenna switches. These consoles also support multi-controller, multi- Rotator Switches for memorization of antenna rotator selections. Optional two-way switch units make it possible to control up to 16 antennas by piggybacking two Smart Antenna Control Consoles per operating position.

| | | |
|---|---|---|
| HPY-MBD-8E | MBD Remote Control Unit, for 8 Antennas | $499.95 |
| HPY-MBD-12F | MBD Remote Control Unit, for 12 Antennas | $699.95 |

HAMPLUS



HPY-IRC-8

HPY-YRC-8

### Transceiver Radio Interface Cables

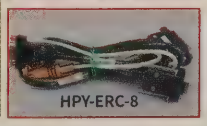
These cables are necessary to complete the connection of each smart Remote Control Console or Desk Antenna Switch with its Transceiver. Choose your cable based on your radio/interface model below.

HPY-YRC-12

| Part Number | Radio | Remote Unit | Price |
|---|---|---|---|
| HPY-IRC-6 | Icom | AS-603A | $65.95 |
| HPY-IRC-8 | Icom | MBD-8 | $69.95 |
| HPY-IRC-12 | Icom | MBD-12 | $69.95 |
| HPY-YRC-61 | Yaesu (Mini) | AS-603A | $65.95 |
| HPY-YRC-6 | Yaesu (DIN) | AS-603A | $65.95 |
| HPY-YRC-8 | Yaesu | MBD-8 | $69.95 |
| HPY-YRC-12 | Yaesu | MBD-12 | $69.95 |
| HPY-KRC-6 | Kenwood | AS-603A | $65.95 |
| HPY-KRC-8 | Kenwood | MBD-8 | $69.95 |
| HPY-KRC-12 | Kenwood | MBD-12 | $69.95 |
| HPY-ERC-6 | Elecraft K3 | AS-603A | $65.95 |
| HPY-ERC-8 | Elecraft K3 | MBD-8 | $69.95 |
| HPY-ERC-12 | Elecraft K3 | MBD-12 | $69.95 |

HPY-KRC-8

HPY-IRC-8



HPY-ERC-8

HAMPLUS

HPY-RS-28

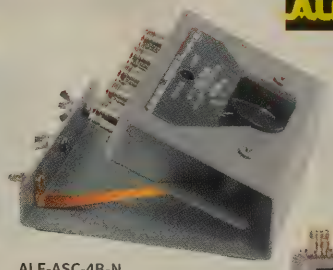
HPY-RS-48

### Rotator Switches

Control up to eight rotators with two or four rotator controllers with Hamplus Rotator Switches. This advanced level of station automation is possible in conjunction with the Hamplus Smart Antenna Control Consoles above. These incredibly useful relay boxes are a contester or DX chaser's best friends. They are extremely useful if you have multiple stations set up in different areas of your home. Each Rotator Switch incorporates a safety interlock to avoid any rotator and controller conflicts.

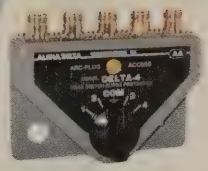
| Part Number | Controllers (Max.) | Rotators (Max.) | Price |
|---|---|---|---|
| HPY-RS-24 | 2 | 4 | $599.95 |
| HPY-RS-28 | 2 | 8 | $899.95 |
| HPY-RS-44 | 4 | 4 | $999.95 |
| HPY-RS-48 | 4 | 8 | $1,795.95 |

ALPHA DELTA COMMUNICATIONS, INC.



ALF-ASC-4B-N

ALF-DELTA-2B



ALF-DELTA-4B-N

ALF-D4

### Manual Antenna Switches

Alpha Delta antenna switches have precision-machined, low loss components for reliable service. Grounded unselected antenna ports and ARC-PLUG™ lightning surge protectors provide the final line of protection. Rated at 1,500 watts max. up to 30 MHz.

| | | |
|---|---|---|
| ALF-DELTA-2B | 2-Position Coax Switch, SO-239 Connector | $69.95 |
| ALF-DELTA-2B-N | 2-Position Coax Switch, N Connector | $94.95 |
| ALF-DELTA-4B | 4-Position Coax Switch, SO-239 Connector | $109.95 |
| ALF-DELTA-4B-N | 4-Position Coax Switch, N Connector | $119.95 |
| ALF-ASC-4B | 4-Position Desk Console Switch, SO-239 Connector | $158.95 |
| ALF-ASC-4B-N | 4-Position Desk Console Switch, N Connector | $168.95 |
| ALF-D4 | Replacement ARC-PLUG | $9.95 |

DAIWA

### Manual Antenna Switches

Perfect for switching one radio between two antennas (or two radios between one antenna), these rugged switches offer excellent isolation and auto-grounding of the unused terminal for extra protection.

DWA-CS-201A

Daiwa's CS-2011GII has a frequency range up to 2 GHz, 50 dB of isolation at 1 GHz and an insertion loss below 1.2 dB at 1.2 GHz. Gold plated N connectors make for easy installation.

The CS-201A has a frequency range up to 600 MHz, 60 dB of isolation at 600 MHz and an insertion loss under .2 dB. This switch features SO-239 connectors.

| | | |
|---|---|---|
| DWA-CS-201GII | Manual Coax Switch, 2 GHz | $48.95 |
| DWA-CS-201A | Manual Coax Switch, 600 MHz | $32.95 |

DIAMOND ANTENNA

DMN-CX210N

DMN-CX310A

### Wideband Coax Switches

Maximum performance without compromise. Diamond Antennas offers an extensive line of station accessories: duplexers/triplexers, switches, dummy loads and lightning protection. Maximize your installation; Diamond Antennas has the gear to help you do it.

| Part Number | Description | Price |
|---|---|---|
| DMN-CX210A | Wideband Coax Switch, 1,500 W Max., DC-1000 MHz, SO-239 | $49.95 |
| DMN-CX210N | Wideband Coax Switch, 1,500 W Max., DC-1000 MHz, N Connector | $82.95 |
| DMN-CX310A | Wideband Coax Switch, 3-Position, DC-800 MHz, SO-239 | $93.95 |

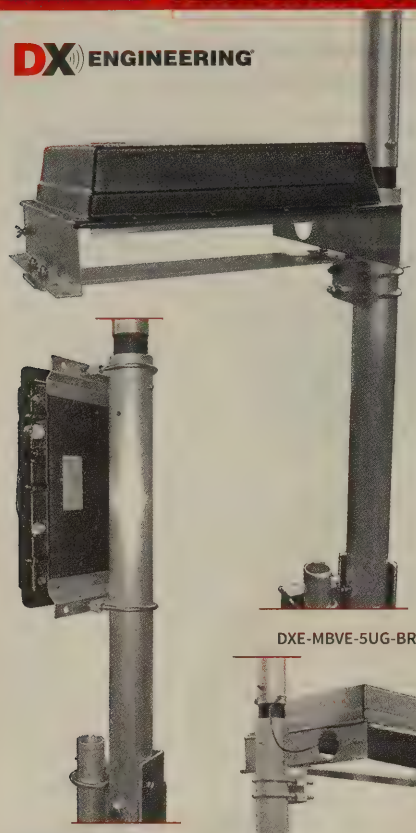
AMERITRON®

### RCS-4 Remote Antenna Switch

The Ameritron RCS-4 is a Four-Position Remote Antenna Switch which is powered through the coax cable. The relay switch box may be tower, mast or wall mounted—the control console is located at your operating position. It features bright LED indicators, a steel enclosure, 50 ms switching time and SO-239 connectors. It uses three heavy-duty 10 ampere contact relays on a rugged G-10 fiberglass circuit board. The RCS-4 operates from 120 Vac power source, and covers 1.8 to through 30 MHz at 1,500 watts.

| | | |
|---|---|---|
| AME-RCS-4 | 1.5 kW Four Position RF Switch | $149.95 |

DX ENGINEERING



DXE-MBVE-5UG-BRT

DXE-MBVE-5AE-RT

## *43' Verticals and Remote Antenna Tuner Mounting Kits*

It's important to mount your MFJ remote antenna tuner as close as you can to your DX Engineering MBVE-5A multi-band vertical antenna to maintain signal efficiency. Just make sure to protect it from weather, rising water and curious critters.

Use DX Engineering's new remote antenna mounting kits. They attach right to the base of the vertical. More importantly, they'll mount the tuner up off the ground—away from Mother Nature and her furry friends.

Select your kit based on your tuner model; the MFJ 927, 993, 994 and 998 remote tuners are supported.

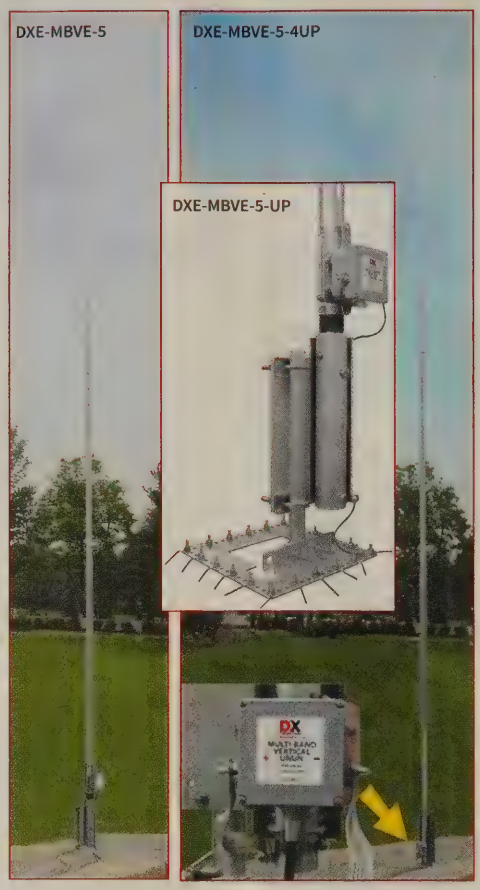
| | | |
|---|---|---|
| DXE-MBVE-5AE-BRT | Mounting Kit, for MFJ-993/994BRT | **$338.85** |
| DXE-MBVE-5AEBRT3 | 43' Vertical and Mounting Kit, MFJ-993BRT Tuner | **$696.75** |
| DXE-MBVE-5AEBRT4 | 43' Vertical and Mounting Kit, MFJ-994BRT Tuner | **$796.75** |
| DXE-MBVE-5AE-RT | Mounting Kit Only, for MFJ-998RT | **$393.85** |
| DXE-MBVE-5AERT8 | 43' Vertical and Mounting Kit, MFJ-998RT Tuner | **$1,191.75** |

**Remote Antenna Tuner Mount Upgrade Kits**

If you have an earlier model MBVE-5, you can also upgrade to the 5AE mount with these kits.

| | | |
|---|---|---|
| DXE-MBVE-5UG-BRT | Upgrade Kit, for MFJ-993/994BRT | **$129.85** |
| DXE-MBVE-5UGBRT3 | Upgrade Kit, Includes MFJ-993BRT Tuner | **$429.80** |
| DXE-MBVE-5UGBRT4 | Upgrade Kit, Includes MFJ-994BRT Tuner | **$529.80** |
| DXE-MBVE-5UG-RT | Upgrade Kit, for MFJ-998RT | **$184.85** |
| DXE-MBVE-5UGRT8 | Upgrade Kit, Includes MFJ-998RT Tuner | **$924.80** |

DX ENGINEERING




## *Multi-Band High-Performance 43 Foot Vertical Antenna Packages With SAF-T-TILT™ Base*

If you want to work DX, but don't have the real estate for an antenna farm, these packages are an excellent solution. They deliver exceptional multi-band performance with a compact size and attractive price. These easy to setup, easy to use packages cover the entire HF band, from 160 to 10 meters.

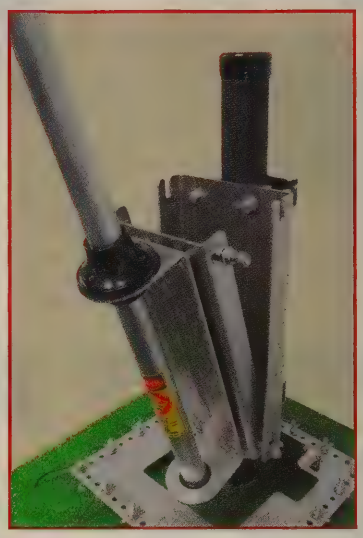
The rugged 43' antenna employs a free-standing, fast taper design that can survive winds up to 92 mph. It's made from 6063-T832 drawn aluminum and features stainless steel hardware for excellent corrosion resistance. Each package below includes the DX Engineering's exclusive patented SAF-T-TILT™ base, which lets you safely raise and lower your antenna for service.

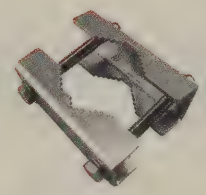
The MBVE-5A antenna requires DX Engineering's UN-43 UNUN and a wide-range tuner. You'll also need 150' of RG-213 cable, sold separately. For optimum results, we recommend a good ground radial system (32 radials, each 32' to 65' long). You can get by with fewer radials with diminished performance.

We've created kits that bundle together some of the essential components. A brief summary is below; a comprehensive description of each combo is at DXEngineering.com.

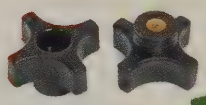
| | | |
|---|---|---|
| DXE-MBVE-5A | Package, Antenna and Tilt Base | **$287.90** |
| DXE-MBVE-5A-4P | Package, Antenna, Tilt Base, Radial Plate, Hardware | **$374.20** |
| DXE-MBVE-5A-4UP | Package, Antenna, Tilt Base, UNUN, Mounting/ Connection Kit | **$436.75** |
| DXE-MBVE-5A-4UPR | Package, Antenna, Tilt Base, Radial Plate, UNUN, Mounting/ Connection Kit | **$523.05** |

DX ENGINEERING





DXE-OTMC-250P



DXE-AOK-OT1194

## *OMNI-TILT™ Vertical Antenna Tilt Base Packages*

Thanks to its all-new design features, the DX Engineering OMNI-TILT Vertical Antenna Tilt Base has become wildly popular. So, we decided to make it even easier to install by creating vertical antenna packages that include both the base and a comprehensive hardware kit.

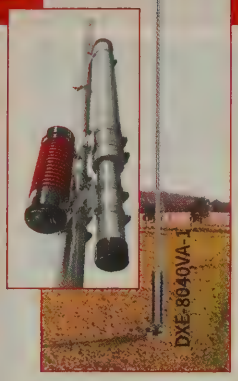
The OMNI-TILT Base was designed upon on the same proven-safe technology as the patented DX Engineering Saf-T-Tilt™ Base and the patented DXE-TB-3P Tilt Base. The antenna can't fall when the fasteners are loosened. Lifting the OMNI-TILT base plate disengages the bolts from the top, so the antenna can be easily lowered for maintenance or to protect it from extreme weather.

It's custom made from laser cut 1/8" thick stainless steel for strength and durability. All of the hardware used in the OMNI-TILT Base is stainless steel to ensure long and dependable service. The DX Engineering OMNI-TILT base is compatible with a wide variety of vertical antennas—including homebrew verticals.

We make several OMNI-TILT optional mounting hardware kits available separately to expand and upgrade the base's versatility.

| | | |
|---|---|---|
| DXE-OMNITILT-1P | OMNI-TILT Package for Trap Verticals | **$73.90** |
| DXE-OMNITILT-2P | OMNI-TILT Package for Mast Mounted Verticals | **$119.85** |
| DXE-OTMC-250P | OMNI-TILT Mounting Clamp Kit | **$24.95** |
| DXE-TVA-HWK | Replacement Tilt Base Hardware Kit | **$3.95** |
| DXE-AOK-OT1194 | OMNI-TILT Wing Nut Knobs | **$9.95** |

**Note: OMNI-TILT shown with optional parts.**



## *THUNDERBOLT® Dual Band High-Performance Vertical Antennas*

**80/40 Meters**

- Full band coverage on 40 and 300 kHz on 80 meters with SWR under 2:1—no outboard tuner needed
- Tunable above and below 7 MHz range for MARS and CAP frequencies
- Maximum legal power handling
- Optimum 53' overall height
- Includes Pivot Base **(Shown on page 65)**
- Self-supporting design withstands 50 mph wind **without guying**—easy raising and lowering with optional winch kit

| | | |
|---|---|---|
| DXE-8040VA-1 | 80M Vertical Antenna | **$1,045.95** |
| DXE-VRW-1 | Manual Winch Kit | **$169.95** |
| DXE-7580-THK | CW Optimizer Capacity Hat | **$77.95** |
| DXE-8040-30AOK* | 30 Meter Add-On Kit | **$148.95** |

***$99.95 if purchased with antenna**

**40/30 Meters**

- Full band coverage on 40 and 30 meters with SWR under 1.5:1—no tuner needed
- 40M bandwidth greater than 750 kHz with SWR under 2:1
- Tunable above and below 7 MHz range for MARS and CAP frequencies
- Maximum legal power handling
- Includes Tilt Base
- Optimum 30' overall height
- Self-supporting design withstands 60 mph wind without guying

DXE-4030VA-1 40/30M Dual-Band Antenna; **$284.95**

DX ENGINEERING

## *Manual Winch Add-On Raising Kit*

DX Engineering's Manual Winch Add-On Raising Kit lets you easily raise and lower your DX Engineering vertical antenna by yourself, which makes antenna service a much easier job. The kit can be moved from one compatible DX Engineering antenna to another, making it a valuable tool for multi-antenna arrays. This kit works with many of DX Engineering's Vertical Antennas and is an excellent complement to its Heavy-Duty Pivot Base.

**Features:**

- Automatic friction brake applies consistent grip to ensure controlled raising/lowering
- Automatically holds antenna position
- Handle won't spin under load
- Meets ASAE safety standard S361.3
- Rated at 1,500 lbs.
- Minimum operating load is 75 lbs.
- 2.5" diameter drum hub
- 5.1:1 gear ratio
- Zinc Tuffplate finish
- Winch strap (2" W x 15' L) with hook and loop, manufactured from low-stretch polyester webbing with 4,000 lbs. break strength
- Stainless steel hardware

DXE-VRW-1 Manual Winch Add-On Kit **$169.95**

DX ENGINEERING

## *High-Performance 160 Meter Quarter-Wave Vertical*

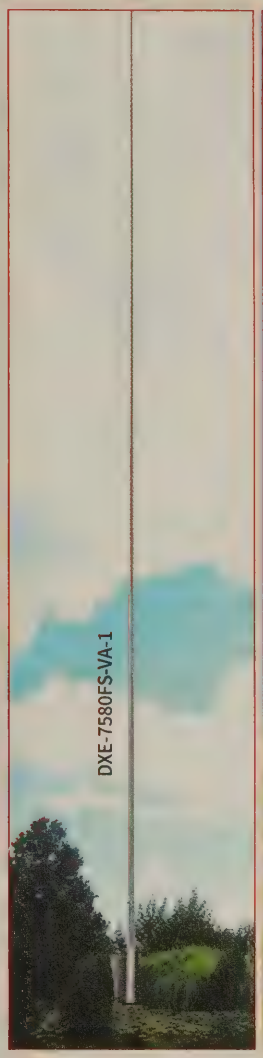
Now you can have a high-performance vertical antenna specifically for the 160 meter band. Achieve the strongest possible presence at your power level and be really competitive! This custom-designed capacity hat system integrates with light rope guying, allowing you to get on 160 meters with a BIG signal from a vertical monoband antenna that is only 55 feet tall! Constructed from aircraft-grade aluminum, the massive three inch diameter lower section is secured by a Heavy Duty Plus Stainless Steel Pivot Base, which can be lowered easily with the optional DXE-VRW One Man Manual Winch.

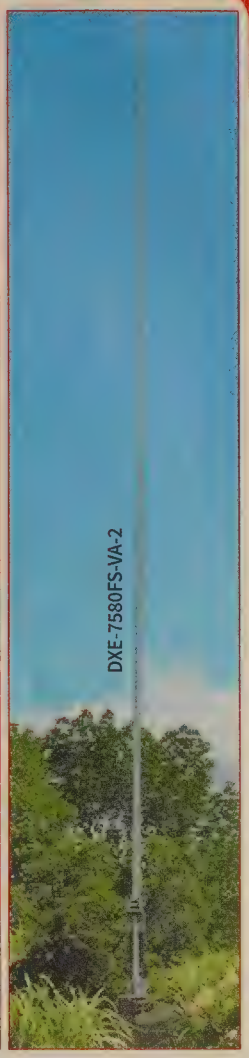
**Antenna Features:**

- 5 kW SSB and CW rated
- Unparalleled reliability
- A custom designed capacity hat for top performance
- An adjustable matching network for the lowest SWR
- 40 kHz SWR bandwidth - CW+DX Phone
- The lowest takeoff angle reduces domestic QRM signals

DXE-160VA-1 160M Vertical Antenna **$995.95**

DXE-VRW-1 Manual Winch Add-On Kit **$169.95**




DX ENGINEERING

## *75/80 Meter Monoband Vertical Antennas*

DX Engineering 7580FS Series are full size, quarter-wave high-performance antennas with everything you need in a high-performance vertical. They feature ultra-wide SWR bandwidth and unbeaten gain, and can handle the highest power amplifiers for reliable performance. They're ideally suited for single antenna applications and directional multi-antenna arrays. Visit DXEngineering.com for details.

DXE-7580FS-VA-1 has a 2" OD heavy wall base section. Its slim profile means you can hide it easily, even in a small stand of tall trees. Some DXers have painted the antenna to match the bark of the surrounding trees. Because of its slim, full size height, guying is required on this antenna.

DXE-7580FS-VA-1 2" OD Full Size Vertical **$399.95**

DXE-7580FS-VA-2 has a 3" OD heavy wall base section and thick-wall 6061 aluminum tubing mid-sections, providing a strong antenna with **no guying necessary**. The antenna can easily be lowered with the supplied Heavy Duty Plus Stainless Pivot Base and the optional DXE-VRW-1 hand winch.

| | | |
|---|---|---|
| DXE-7580FS-VA-2 | 3" OD Full Size Vertical | **$899.95** |
| DXE-VRW-1 | Manual Winch Add-On Kit | **$169.95** |

The massive DXE-7580FS-VA3 features a 4" OD heavy wall base section and thick-wall 6061 mid sections, creating a very stout 68 foot vertical antenna with **no guying necessary**, even in adverse conditions. It can be lowered easily with the supplied Heavy Duty Plus Stainless Pivot Base and the optional DXE-VRW-1 hand winch.

| | | |
|---|---|---|
| DXE-7580FS-VA-3 | 4" OD Full Size Vertical | **$1,769.95** |
| DXE-VRW-1 | Manual Winch Add-On Kit | **$169.95** |

**Heavy Duty Pivot Bases sold separately on page 65.**

## Multi-Band High Performance HF Vertical Antenna Systems

DX ENGINEERING

DXE-HSR-4BTV-P1

DX Engineering's tech support teams have bundled together multi-band vertical antenna systems designed to get you on the HF bands quickly, without the component-matching hassles. The systems are based around a Hustler Multi-Band HF Vertical. The DX Engineering team chose Hustler because of the antennas' performance, durability and versatility. The verticals are easy to tune and deliver outstanding performance.

The combos also include DX Engineering's patented Radial Plate, which creates an ultra-reliable radial system to ensure optimized antenna performance. The patented DX Engineering Tilt Base makes it easy to raise/lower the antennas for service, bad weather, or to keep the neighbors happy.

You'll also get appropriate stainless steel clamps, hardware, radial wire with staples, direct coax feedpoint kit, SecureMount™ connector kit, coax jumper and a 60 page installation guide. Exact contents vary by system, visit DXEngineering.com for details.

| | Band Coverage | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | 80M | 40M | 30M | 20M | 15M | 10M | Price |
| DXE-HSR-4BTV-P1 | | X | | X | X | X | **$502.30** |
| DXE-HSR-5BTV-P1 | X | X | | X | X | X | **$532.30** |
| DXE-HSR-6BTV-P1 | X | X | X | X | X | X | **$546.30** |

## Vertical Antennas and Arrays

COMTEK SYSTEMS

These rugged, affordable quarter-wave antennas are designed to be used in sets to provide top performance with phased vertical array systems like the COMTEK PVS 2-antenna systems or COMTEK and DX Engineering Four-Square array controllers. **The COM-20VA antenna can be used on any single band —20, 17, 15, 12 or 10 meters— by adjusting its length.**

Constructed from 6063 aircraft-spec aluminum tubing, these antenna taper from a huge base section. High strength, UV-resistant EXTREN® insulators and a heavy aluminum plate mounting base ensure long lasting, reliable performance under adverse conditions. The antennas come with V-saddle clamps for installation to your ground-mounted pipe; 2" OD pipe is recommended, but the clamps will accept any size from 1" to 2". Stainless steel hardware included. Light rope guying is always recommended for phased systems to keep spacing precise and minimize swaying.

**20 Meter Vertical Antenna**

| | | |
|---|---|---|
| COM-20VA | 20M Vertical Antenna | **$147.95** |
| COM-20VA-2P | 20M Vertical Antenna, Set of 2 | **$295.90** |
| DXE-TB-8P | Tilt Base, Kit | **$106.95** |
| COM-20VA-4P | 20M Vertical Antenna, Set of 4 | **$591.80** |

**30 Meter Vertical Antenna**

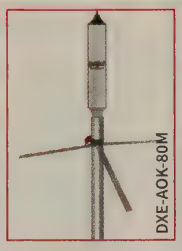
| | | |
|---|---|---|
| COM-30VA | 30M Vertical Antenna | **$207.95** |
| COM-30VA-2P | 30M Vertical Antenna, Set of 2 | **$415.90** |
| COM-30VA-4P | 30M Vertical Antenna, Set of 4 | **$831.80** |
| DXE-TB-7P | Tilt Base, Kit | **$106.95** |

**40 Meter Vertical Antenna**

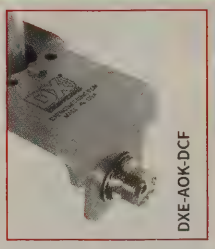
| | | |
|---|---|---|
| COM-40VA | 40M Vertical Antenna | **$227.95** |
| COM-40VA-2P | 40M Vertical Antenna, Set of 2 | **$455.90** |
| COM-40VA-4P | 40M Vertical Antenna, Set of 4 | **$911.80** |
| DXE-TB-7P | Tilt Base, Kit | **$106.95** |

**See adjacent page for Radial Plates and Radial Wire Kits to complete your antenna installation.**

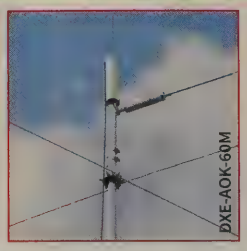
HSR-30-MTK



DXE-AOK-80M



DXE-AOK-DCF



DXE-AOK-60M

DX ENGINEERING

## Add-On Kits for Hustler BTV Verticals

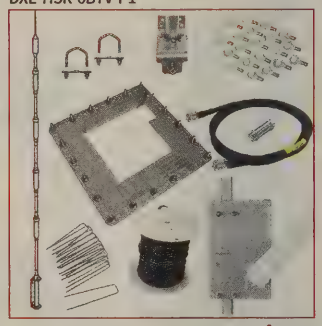
DX Engineering offers add-on kits that provide additional frequency band coverage or installation and operating convenience to the popular Hustler BTV vertical antenna family. Simply add the kit, make some minimal tuning adjustments, and you're on the air with an additional band. The stainless steel DXE-AOK-DCF allows simple connection of coaxial cable with a PL-259 connector.

| | | |
|---|---|---|
| DXE-AOKB-12M | 12 Meter Add-On Kit for Hustler BTV Verticals | **$69.95** |
| DXE-AOKB-17M | 17 Meter Add-On Kit for Hustler BTV Verticals | **$86.95** |
| HSR-30-MTK | 30 Meter Add-On Kit for Hustler 4BTV and 5BTV Verticals | **$54.95** |
| DXE-AOK-60M | 60 Meter Add-On Kit for Hustler BTV Verticals | **$84.95** |
| DXE-AOK-80M | 80 Meter Add-On Kit for Hustler 4BTV Verticals | **$64.95** |
| DXE-AOK-DCF | Direct Coax Feed for Hustler BTV Verticals | **$28.95** |
| DXE-8X19-RT | Vertical Antenna Feedpoint Cable | **$32.95** |

## BTV Verticals

HUSTLER

DXE-HSR-6BTV-P1



The Hustler BTV antenna series delivers great performance, easy assembly, and the best reliability of any multi-band vertical on the market. These antennas offer 2:1 SWR or better at the band edges and up to a 100 kHz bandwidth on 75/80M (5BTV and 6BTV only). Hustler's exclusive trap design offers the lowest loss possible.

Hustler BTV series antennas are a quarter-wave-trapped vertical design that should be ground-mounted with radials or elevated-mounted with tuned radials. Visit DXEngineering.com for more information about radials for quarter-wave vertical antennas.

The sealed cover on the traps assures stable tuning in all kinds of weather. There is a wide tuning range designed in the antenna to accommodate differing ground plane conditions. All antenna sections use 1.25 inch heavy wall, high strength aluminum. The traps use a solid 1 inch fiberglass form for optimum electrical and mechanical stability. The base uses an extra heavy duty aluminum mounting bracket with low loss, high strength insulators.

The new, economical DX Engineering High Performance BTV packages include a stainless steel tilt base and radial plate, radial wire installation kit, direct coax feed add-on kit, bulkhead coax connector, low loss RG-8/U jumper cable and stainless steel V-clamps.

HSR-5BTV

| | | |
|---|---|---|
| DXE-HSR-4BTV-P1 | 4BTV High Performance Package and Accessories; | **$502.30** |
| DXE-HSR-5BTV-P1 | 5BTV High Performance Package and Accessories; | **$532.30** |
| DXE-HSR-6BTV-P1 | 6BTV High Performance Package and Accessories; | **$546.30** |
| HSR-4BTV | BTV-4 Band Antenna Only | **$172.95** |
| HSR-5BTV | BTV-5 Band Antenna Only | **$202.95** |
| HSR-6BTV | BTV-6 Band Antenna Only | **$215.95** |

## Service Parts for Hustler Verticals

DX Engineering now stocks a ton of parts to keep your Hustler Antenna on the air for a long time. These are genuine Hustler parts, so you're assured both excellent fit and function. Don't see a critical part you need? Call us, we may be able to special order it for you—or perhaps suggest a custom solution.

| Part Number | Description | Price |
|---|---|---|
| HSR-TRAPCVR-P | Replacement Trap Caps, Set of 4 | **$19.95** |
| HSR-3772-1 | Clutch Nut for Old-Style RM Resonators | **$1.50** |
| HSR-3774-1 | Clutch Sleeve for Old-Style RM Resonators | **$1.50** |
| HSR-4087-1 | Lower Aluminum Tube for BTV Series | **$29.95** |
| HSR-4090-1 | 10 Meter Trap for BTV Series | **$42.95** |
| HSR-4090-2 | 15 Meter Trap for BTV Series | **$42.95** |
| HSR-4090-3 | 20 Meter Trap for BTV Series | **$42.95** |
| HSR-4090-4 | 30 Meter Trap for BTV Series | **$42.95** |
| HSR-4098-1 | Antenna Base Assembly Bracket for BTV Series | **$54.95** |
| HSR-4457-1 | Spider Assembly for 5BTV Antenna, 3-Blade | **$11.95** |
| HSR-9471 | Spider Assembly for 4BTV and 5BTV, with Hardware and Tubing | **$23.95** |
| HSR-49-04-40S | Antenna Whip for RM-40S Super Resonator | **$6.25** |
| HSR-49-04-80S | Antenna Whip for RM-80S Super Resonator | **$10.95** |

## Radial Wire Kits

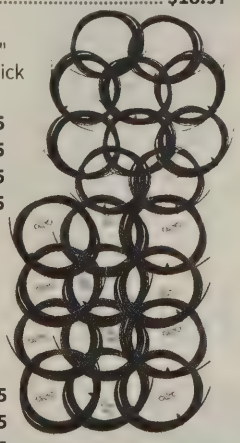
**Bulk Radial Wire Kits**

You should install as many radials as possible to achieve optimal performance with a ground-mounted vertical. All our radial wire kits use #14 stranded insulated copper wire that is UV-resistant, hard to see and lays down easily without a preset helix.

| | | |
|---|---|---|
| DXE-RADW-500K | Radial Kit, 500', Ring Terminals, Wire Staples | $106.85 |
| DXE-RADW-500KBD | Radial Kit, 500', Ring Terminals, Biodegradable Staples | $109.85 |
| DXE-RADW-1000K | Radial Kit, 1,000', Ring Terminals, Wire Staples | $200.75 |
| DXE-RADW-1000KBD | Radial Kit, 1,000', Ring Terminals, Biodegradable Staples | $206.75 |
| SUM-900031R | Wire Stripper/Crimper/Cutter Tool | $18.97 |

**Pre-Assembled Radial Wires**

These packages of pre-cut 14-gauge radial wires include 1/4" Ring Terminals that are machine-crimped on one end for quick attachment to your radial plate.



| | | |
|---|---|---|
| DXE-RADW-20RT | 20' Radial Wire, 20 Pack | $80.95 |
| DXE-RADW-32RT | 32' Radial Wire, 20 Pack | $107.95 |
| DXE-RADW-65RT | 65' Radial Wire, 20 Pack | $189.95 |
| DXE-RADW-120RT | 120' Radial Wire, 10 Pack | $189.95 |

**Pre-Cut Radial Kits**

DX Engineering offers pre-cut radial wire kits for the 80, 40, 20, 15 and 10 meter bands, complete with wire connection hardware for elevated radial installations. Just strip the wire ends, crimp and solder. Each radial is slightly longer than a quarter-wave to allow tuning as necessary.

| | | |
|---|---|---|
| DXE-RADW-1K | Radial Wire Kit for 20, 15 and 10M | $26.95 |
| DXE-RADW-40MK | Radial Wire Kit for 40M | $22.95 |
| DXE-RADW-80MK | Radial Wire Kit for 80M | $39.95 |

## Radial Wire Staples

There is no need to bury your radials for performance. DX Engineering Radial Wire Staples are perfect for fastening radials on the ground below the grass to eliminate the risk of damaging your radials during lawn maintenance. The radials disappear into the lawn within weeks.

DXE-STPL-100BD

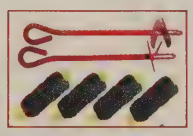
Radial Wire Metal Staple

The low-cost metal staples now have a biodegradable counterpart. The "BD" suffix indicates a pack of 3 inch biodegradable anchors made from recycled PLA (Polylactide Resin). Depending on weather conditions, they will degrade in a year or two. They are easily installed and will hold radial wires in place until lawn roots overtake them—and then the staples disappear. Ecologically friendly.

| | | |
|---|---|---|
| DXE-STPL-100BD | Radial Wire Biodegradable Staple, 3", 100 Pack | $18.95 |
| DXE-STPL-100P | Radial Wire Metal Staple, 6", 100 Pack | $15.95 |
| DXE-STPL-300P | Radial Wire Metal Staple, 6", 300 Pack | $43.95 |

## Guying Kits

Many locations experience winds that can be damaging to antennas, even at ground level. These kits provide four ground anchors and plenty of 260 pound, 3/32 inch diameter rope to provide the guying necessary to protect your vertical antenna. The black rope is UV-protected to last for years.



| | | |
|---|---|---|
| DXE-GUY100-KIT | BTV Guying Kit, 100' of Rope | $29.95 |
| DXE-GUY200-KIT | BTV Guying Kit, 200' of Rope | $32.95 |
| DXE-GUY400-KIT | Vertical Guying Kit, 400' of Rope | $65.76 |
| DXE-GUY1000-KIT | HD Vertical Guying Kit with 1,000' of Rope | $91.95 |
| DXE-EA15 | Earth Anchor | $5.49 |

## Accessories for Vertical Antennas

| | | |
|---|---|---|
| DXE-SSVC-2P | V-Saddle Clamp, 1" to 2" OD | $12.45 |
| DXE-AOK-TB1193 | Wing Nut Tilt Base Add-On Kit, 2 Per Pack | $8.95 |
| DXE-AOK-DCF | Direct Coax Feed | $28.95 |
| DXE-8XDX002 | Low Power DCF Jumper Cable, 2' | $17.45 |
| DXE-400MAXDX003 | High Power/Low Loss DCF Jumper Cable, 3' | $21.45 |
| DXE-VFCC-H05-A | Vertical Feedline Current Choke | $149.95 |

DXE-EA15

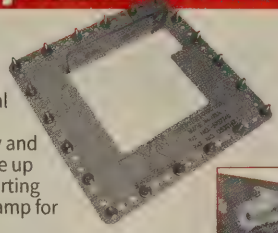
## Wing Nut No-Tools Kit for DX Engineering Tilt Base

Use these wing nut knobs for tool-less quick release of the DX Engineering DXE-TB Tilt Bases—handy for lowering the antenna for tuning or daily stealth operation. Simply remove the existing hex nuts and thread on the wing nuts. The old hex nuts store on the tilt base for future use. Purchase two sets to allow tightening of the lower mounting hardware without tools and for extended periods of upright installation and use.

| | | |
|---|---|---|
| DXE-AOK-TB1193 | Wing Nut No-Tools Knobs, Pack of 2 | $8.95 |

DX ENGINEERING

## Radial Plate

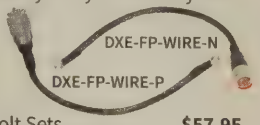


DX Engineering's patented Radial Plate provides a neat, easy and effective way to connect essential radial wires and feedline to your quarter-wave vertical antenna. The plate can be attached easily and rigidly to a 4x4 or 6x6 post, steel or aluminum pipe up to 3 inches OD, a fence post, or whatever is supporting your antenna. Purchase the optional V-Saddle Clamp for mounting the plate to pipe up to 3 inches OD.

SecureMount™

The plate assembly has been drilled for an optional SO-239 panel mount or bulkhead mount connector, available from DX Engineering. This will ground the shield of your feedline to the radial plate before it goes to the antenna, allowing maximum transfer of ground current directly into your radial system.

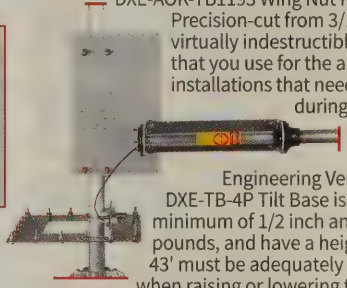
- Provides attachment for coaxial cable shield
- Square to allow most radial attachment points
- Stainless steel plate won't dissolve like aluminum
- Stainless steel hardware




| | | |
|---|---|---|
| DXE-RADP-3 | Radial Plate with 20 Stainless Steel Bolt Sets | $57.95 |
| DXE-RADP-1HWK | Hardware Set, Includes 20 sets of 1/4" Stainless Hardware; | $7.95 |
| DXE-225RT-20 | Ring Terminals, 1/4" Hole, for 14-/16-Gauge Wire, 20 Pack | $4.95 |
| DXE-SSVC-2P | V-Saddle Clamp, 1" to 2" OD Applications | $12.45 |
| DXE-SSVC-3P | V-Saddle Clamp, 2.375" to 3" OD Applications | $15.45 |
| DXE-UHF-FDFB-KIT | SecureMount™ SO-239 Bulkhead Connector Kit | $15.40 |
| DXE-112-KIT | SO-239, PTFE/Silver, Chassis Mount with Hardware | $9.95 |
| DXE-363-SST | SO-239, PTFE/Silver, Bulkhead Fitting with Hardware | $7.45 |
| DXE-FP-WIRE-N | Feedpoint Assembly, N Connector, Use with DXE-1023 | $19.95 |
| DXE-FP-WIRE-P | Feedpoint Assembly, PL-259, Use with DXE-UHF-FDFB-KIT | $17.95 |
| PTX-81343 | Anti-Seize Compound, 1 Oz. Squeeze Tube | $3.29 |

## Tilt Base

No more climbing ladders or removing a bracket from the support post. One person can easily lift the antenna, tilt it to the side and walk it down. The optional DXE-AOK-TB1193 Wing Nut Kit makes for a no-tools fastening of the tilt base. Precision-cut from 3/16 inch 304 stainless steel, the Tilt Base is virtually indestructible and conveniently mounts to the same mast that you use for the antenna and radial plate. The Tilt Base is great for installations that need to accommodate CC&R, or for taking down antenna during severe weather.

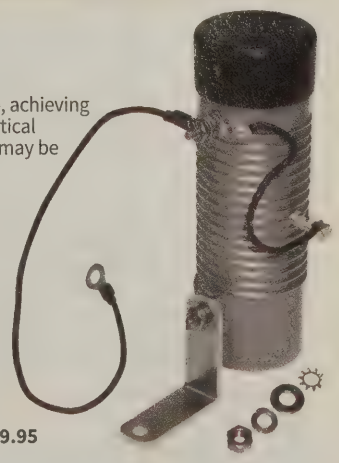


Use DXE-TB-3P for Hustler® BTV models, DXE-TB-4P for specific Butternut®, GAP, Hy-Gain and DX Engineering Verticals, and use DXE-TB-6P for HyGain 14AVQ. The DXE-TB-4P Tilt Base is intended for quarter-wave verticals that have a minimum of 1/2 inch and a maximum of 2 inch OD base, weigh up to 20 pounds, and have a height of no more than 28'. Vertical antennas up to 43' must be adequately guyed, and extra precautions should be taken when raising or lowering the antenna to avoid undue lateral stress on the tilt mechanism. If you are mounting your Tilt Base to a ground mounted pipe, you will need two DXE-SSVC-2P V-Bolt Saddle Clamps to complete the installation.

| | | |
|---|---|---|
| DXE-TB-3P | Tilt Base Kit for Hustler BTV Model Antennas | $61.95 |
| DXE-TB-4P | Tilt Base Kit for Antennas Other Than Hustler BTV | $87.95 |
| DXE-TB-6P | Tilt Base Kit for Hy-Gain 14AVQ | $96.95 |
| DXE-TB-7P | Tilt Base for COMTEK 40VA and 30VA Verticals, Kit | $106.95 |
| DXE-TB-8P | Tilt Base for COMTEK 20VA Verticals | $106.95 |
| DXE-AOK-TB1193 | Wing Nut No-Tools Kit, Pack of 2 | $8.95 |
| DXE-SSVC-2P | V-Saddle Clamp, 1" to 2" OD Applications | $12.45 |

DX ENGINEERING

## Vertical Antenna Matching Network



Without a means of adjusting feedpoint impedance, achieving the best SWR on 160, 80 and 40 meters on some vertical antenna installations with excellent radial systems may be difficult. The Vertical Antenna Matching Network lets you tune a low impedance antenna to the minimum SWR in the user-selected portion of the band without affecting operation on the other, higher frequency bands (if applicable). This Vertical Antenna Shunt Matching Network can be used on resonant 160 meter Inverted-L and Tee-Top wire verticals. The #12 AWG coil wire is tin-nickel plated for high power handling, corrosion resistance, ease of soldering and long-term reliability, even outdoors.

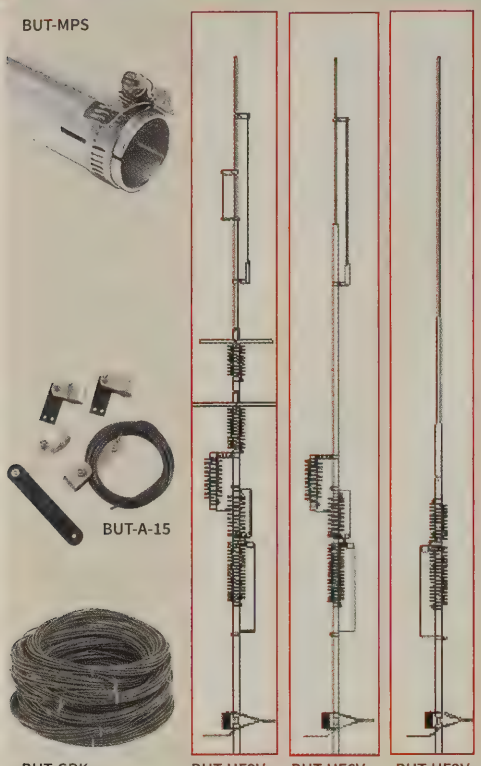
| | | |
|---|---|---|
| DXE-VMN-1 | Vertical Antenna Matching Network | $79.95 |

## DX Engineering Coil Tap Clips

These silver-plated Coil Tap Clips provide adjustable attachment points to uninsulated coils including homebrew, Miniductor™ and Airdux™. They also are useful for making flying connections to uninsulated wire in non-RF applications without soldering or cutting. These clips will accommodate wire sizes from #20 to #10 AWG.

| | | |
|---|---|---|
| DXE-CLIP-P | Coil Tap Clips, Pack of 5 | $9.95 |

## butternut




### *Vertical Antennas*

Butternut Antennas have a well-earned reputation for performance and long life. They are easy to erect and tune, and will last many years. No lossy traps are used in these internationally acclaimed antenna designs.

| | | |
|---|---|---|
| BUT-HF9V | 9-Band, 80/40/30/20/17/15/12/10/6M; | **$604.95** |
| BUT-HF6V | 6-Band, 80/40/30/20/15/10M; | **$522.95** |
| BUT-HF2V | 2-Band, 80/40M | **$374.95** |
| BUT-MPS | Mounting Post Sleeve for HF6V/HF9V | **$23.95** |
| BUT-GRK | Ground Radial Kit for HF2V/HF6V/HF9V | **$110.00** |
| BUT-A-17-12 | 17/12 Meter Kit for HF6V, 277-10 | **$75.00** |
| BUT-A-15 | 15M Resonator Kit for HF6V/9V | **$67.95** |
| BUT-A-6 | 6 Meter Kit for HF6V, 277-12 | **$24.95** |
| BUT-290-06A | Replacement 67 pF Capacitor; | **$43.95** |
| BUT-290-05A | Replacement 200 pF Capacitor and Hardware Pack | **$48.95** |
| BUT-290-07A | Replacement 67 pF and 200 pF Capacitor and Hardware Pack; | **$87.95** |
| BUT-290-11 | Capacitor Bracket Replacement Kit, 80/40/17/12M | **$29.95** |
| BUT-290-12 | Tube B1 with Insulator | **$44.95** |
| BUT-290-13 | Replacement 30M Bracket and Capacitor Kit | **$79.95** |
| BUT-290-14 | Hardware Pack for HF2V | **$13.95** |
| BUT-290-15 | Hardware Pack for HF6V/HF9V; | **$18.95** |

Overview | Documentation | Suggested Parts | Show All

**Related Products:** Parts that may improve the performance or installation

**Suggested Parts**- Sometimes Ham Radio gear requires special accessories like hookup cables and brackets to complete an installation. Visit DXEngineering.com and check out the "Suggested Parts" tab on certain products to see what you'll need to get up and running.

### *EA6J 6 Meter Vertical Antenna*

Based on the time-tested J-pole design, EAntenna's EA6J delivers 2 dBi gain and a 2 MHz bandwidth at 2:1 SWR. At just about 17' high, its a compact and cost-effective solution for 6 meter stations. It handles full legal limit power and will survive winds up to 80 mph.

EAN-R2010802 EA6J 6 Meter Vertical Antenna ..... **$119.95**

## butternut

BUT-RMK-II

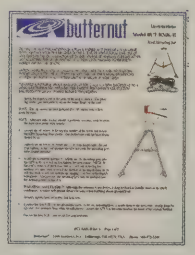
### *Accessory Kits for Butternut HF Verticals*

DX Engineering offers upgrade and accessory components to increase the versatility of its Butternut HF Vertical line. You can also find parts for your DX Engineering Butternut HF Vertical online at DXEngineering.com.

| | | |
|---|---|---|
| BUT-RMK-II | Roof-Mount Kit for HF6V/HF9V | **$240.00** |
| BUT-TLK | 160/80M Top-Loading Kit for HF2V | **$57.00** |
| BUT-STR-II | Stub Tuned Radiator Kit for HF6V/HF9V | **$190.00** |

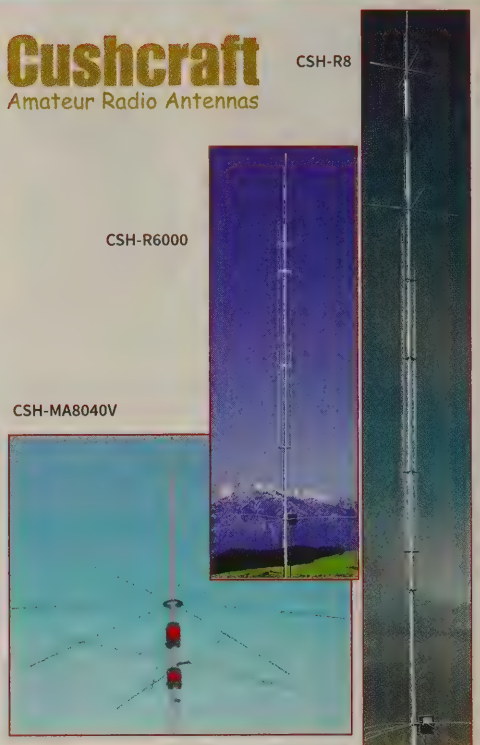
## butternut

As part of our commitment to keep the "Classic" Butternut Verticals and their accessories available, DX Engineering has been working on publishing new manuals. These new Butternut manuals have expanded information, better assembly pictures, troubleshooting tips and all of the latest information to help you get your Butternut Vertical on the air quickly.



You can view or download the new manuals online at DXEngineering.com

## Cushcraft
Amateur Radio Antennas




### *Vertical Antennas*

**MA160V 160 Meter 36' Vertical Antenna with Radial Kit**

This antenna is a compact, efficient vertical designed for working top-band DX from an average-size house lot. A low launch angle and deep overhead null combine to pull in distant stations while rejecting local QRM.

CSH-MA160V 160M Vertical Antenna ..... **$299.95**

**R6000 20-6 Meter 6-Band, 19' Vertical Antenna**

This is a 20 through 6 meter, no-ground radial antenna. No traps are used on 15, 10 and 6 meters for maximum efficiency and power handling.

CSH-R6000 6-Band Vertical Antenna ..... **$429.95**

**R8 40-6 Meter 8-Band, 28.5' Vertical Antenna**

This multi-band design provides 8-band coverage encompassing the 40, 30, 20, 17, 15, 12, 10 and 6 meter bands. The antenna provides 360 degree (omni) coverage on the horizon and a low radiation angle in the vertical plane for a better DX.

| | | |
|---|---|---|
| CSH-R8 | 8-Band Vertical Antenna | **$539.95** |
| CSH-R8GK | 3-Point, Non-Conductive Guy System for R8 | **$55.95** |

**R9 Nine-Band Vertical Antenna**

Covering the 80-6 meter bands, the R9 is a versatile and efficient multi-band resonant design. It is 28.5 feet tall, handles full legal limit power (PEP) and requires no radials. See DXEngineering.com for more details.

CSH-R9 R9 Nine-Band Vertical Antenna.... **$629.95**

**Cushcraft Vertical Antennas**

| | | |
|---|---|---|
| CSH-MA160V | 160 Meter with Radial Kit, 36' | **$299.95** |
| CSH-MA8040V | 80/40 Meter Dual-Band, 27' | **$299.95** |
| CSH-MA5VA | 20-10 Meter 5-Band, 14.7' | **$289.95** |
| CSH-MA6VA | 20-6 Meter 6-Band, 14.7' | **$329.95** |
| CSH-AR10 | 10 Meter Ringo, 3 dB, 17.6' | **$109.95** |
| CSH-AR6 | 6 Meter FM Ringo, 3 dB, 10' | **$99.95** |
| CSH-AR2 | 2 Meter FM Ringo, 3 dB, 3.9' | **$64.95** |
| CSH-ARX2 | 2 Meter Ringo Ranger, 5 dB, 12.5' | **$79.95** |
| CSH-ARX2B | 2 Meter Ringo Ranger II, 7 dB, 14' | **$105.95** |
| CSH-ARX220B | 220 MHz Ringo Ranger II, 7 dB, 9'; | **$109.95** |
| CSH-AR270 | 2 Meter/440 MHz Ringo, 3/5.5 dB, 3.75' | **$129.95** |
| CSH-AR270B | 2 Meter/440 MHz Ringo, 5.5/7.5 dB, 7.7' | **$179.95** |
| CSH-AR450 | 440 MHz FM Ringo, 3 dB, 1.4' | **$47.95** |
| CSH-ARX450B | 440 MHz Ringo Ranger II, 7 dB, 5'; | **$99.95** |

## Patriot Vertical Antennas

hy-gain

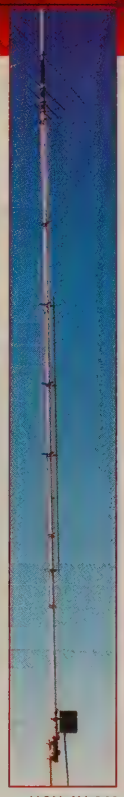
Take advantage of the sunspot cycle with the low takeoff angle of Hy-Gain's Patriot Vertical Antennas. These three antennas feature efficient end-loading coils and capacity hats to give you optimum performance on several bands. They handle 1,500 watts, feature automatic band switching and each band is individually tunable. Their sleek, radial-less design means a low wind surface area and small footprint, so you can mount them easily on your deck, roof or patio. Discover the complete specs on each antenna at DXEngineering.com.

| | | |
|---|---|---|
| HGN-AV-620 | 20, 17, 15, 12, 10 and 6 Meter Vertical, 22.5' | **$349.95** |
| HGN-AV-640 | 40, 30, 20, 17, 15, 12, 10 and 6 Meter Vertical, 25.8' | **$449.95** |
| HGN-AV-680 | 80, 40, 30, 20, 17, 15, 12, 10 and 6 Meter Vertical, 26' | **$529.95** |

## AV-18HT Hy-Tower 5-Band, 50 Foot Vertical

The AV-18HT Hy-Tower is an omni-directional, self-supporting vertical radiator which operates on 80 through 10 meters. 160 meter operation is possible with the addition of a loading coil. The use of stub decoupling systems allows automatic band switching on 80, 40, 20, 15 and 10 meters. The stubs isolate various sections of the vertical antenna so that an electrical 1/4-wavelength (or odd multiple of 1/4-wavelength) exists on all bands. On 20 meters, the 80 meter section acts as a 3/4-wave radiator.

The tilting base of the Hy-Tower allows the antenna to be completely assembled on the ground before it is raised into position. It is light enough for one person to assemble and for two people to erect. The Hy-Tower is supplied with stainless steel hardware.
Maximum Power: 1 kW AM, 2 kW PEP. Overall Height: 53 feet.



HGN-AV-640 HGN-AV-18HT

The Hy-Tower is drop-shipped via motor freight directly from Hy-Gain to you. DX Engineering will e-mail you a shipping quote when you place your order.

| | | |
|---|---|---|
| HGN-AV-18HT | Hy-Tower 80, 40, 20, 15 and 10 Meter Vertical | **$939.95** |
| HGN-MK-160A | 160 Meter Add-On Kit for AV-18HT | **$119.95** |

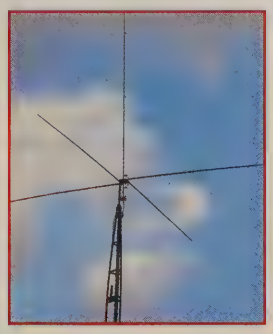
## Super Penetrator 12/10 Meter Vertical Antenna

hy-gain

The legend from the 1970s is back! This fantastic, true full-size 5/8-wave vertical antenna from Hy-Gain is the only antenna of its type to survive the test of time.

Be ready for 10 meter activity at any time! This antenna will help you to collect more 10-10 numbers, work more DX and make Ham radio more fun.

The SPT-500 is 22 feet, 9.5" tall and is specifically designed to accept AM/FM, SSB, CW and digital signals with low loss. It handles 1,500 watts.



| | | |
|---|---|---|
| HGN-SPT-500 | 12/10M Vertical Antenna | **$149.95** |

HUSTLER

## 6 Meter VHF Monoband Vertical Antenna

It's an excellent 6M, 5/8-wave vertical antenna that delivers up to 6.4 dBi gain, which makes it perfect for SSB operation. It's got a full-size radiator with a lower takeoff angle, which means the power is directed closer to the horizon where you want it. Use the tuned radials at the antenna's base to achieve a bandwidth over 4 MHz and a SWR of 2:1 or less. This antenna also has a shunt-fed matching system, which drains static to dramatically reduce unwanted noise. The antenna stands about 8 feet tall and will handle 300 watts.

| | | |
|---|---|---|
| HSR-G-3754 | 6M VHF Monoband Vertical Antenna | **$158.95** |

## G-Series Vertical Antennas

Hustler's acclaimed G-Series antennas deliver impressive performance in easy-to-assemble packages. These antennas represent the perfect union of price, coverage and results. They're made from high-quality materials, so they stand up to Mother Nature and give you years of reliable use.

| Part Number | Band(s) | Gain | Power Handling | Height | Price |
|---|---|---|---|---|---|
| HSR-G7-144 | 2M | 7.0 dBd | 600 W | 15.33' | **$209.95** |
| HSR-G6-144B | 2M | 6.0 dBd | 600 W | 9.75' | **$145.95** |
| HSR-G3-144 | 2M | 3.0 dBd | 200 W | 7.42' | **$75.95** |
| HSR-G7-220 | 1.25M | 7.0 dBd | 1,000 W | 9.75' | **$199.95** |
| HSR-G6-440 | 70cm | 6.0 dBd | 100 W | 7.25' | **$209.95** |
| HSR-G6-270R | 2M/70cm | 6.0 dBd | 100 W | 7.50' | **$209.95** |

HSR-G7-144

hy-gain

## AV-12AVQ, AV-14AVQ and AV-18AVQII Multi-Band Trap Verticals

The 3-band Hy-Gain AV-12AVQ, 4-band AV-14AVQ and 5-band AV-18AVQII use the same trap design as the famous Hy-Gain Thunderbird beams. Separate air dielectric Hy-Q traps with oversize coils give superb stability and quarter-wave resonance on all bands. Their 18 foot overall length fits well in most urban environments. The 14-AVQ covers the 40, 20, 15 and 10 meter bands while the 18-AVQII adds the 80 meter band to the mix.

All Hy-Gain multi-band vertical antennas are entirely self supporting—no guys required. They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

Hy-Gain vertical antennas handle 1,500 watts PEP SSB, have low SWR and automatic bandswitching. Heavy-duty, slotted, tapered swaged aircraft quality aluminum tubing with full circumference compression clamps is used for radiators.

All Hy-Gain verticals feature a two year limited warranty.

AV-14AVQ AV-18AVQII

| | | |
|---|---|---|
| HGN-AV-12AVQ | 3-Band Trap Vertical, 20, 15 and 10 Meter Bands | **$139.95** |
| HGN-AV-14AVQ | 4-Band Trap Vertical, 40, 20, 15, 10 Meter Bands | **$179.95** |
| HGN-AV-18AVQII | 5-Band Trap Vertical, 80, 40, 20, 15, 10 Meter Bands | **$254.95** |

COM-Stack-2-System

COM-Stack-3-System

COMTEK SYSTEMS

## Stack 2 and Stack 3 Systems

COMTEK's Stack 2 System lets you select from two antennas, either individually or simultaneously in order to choose the best vertical radiation angle for the band conditions. The system is designed for 40-10 meter tri-band, log periodic or monoband Yagi antennas.

For even more selectivity, the COMTEK Stack 3 System gives you a broader range of signal arrival and transmission angles. The system's Yagi Array Switch Relay Unit lets you choose from any single (or combination of) three Yagi Beam Antennas. You can also use it to match and switch a 3-monoband Yagi stacked array for any HF band, covering 40-10 meters.

Operating the Stack 2 and 3 Yagi Array Switch Relay Units is done via the Yagi Switch Control Consoles. Indicator lights are intuitive and the controls are user-friendly. The Control Consoles and Relay Units use 12 Vdc and require 3-conductor control cable. The Relay Units handle 3,000 watts.

The Stack 2 and Stack 3 Switch Control Consoles and Relay Units are available separately or bundled together into comprehensive, money-saving systems. With the systems, you'll just need control cable and the additional coax phasing cable to complete your installation.

**Stack 2 Systems**

| | | |
|---|---|---|
| COM-STACK-2 | Yagi Switch Relay Unit | **$262.95** |
| COM-STK2A | Yagi Switch Control Console | **$124.95** |
| COM-STACK-2-A | Yagi Switch System with Console and Relay Unit | **$387.90** |

**Stack 3 Systems**

| | | |
|---|---|---|
| COM-STACK-3 | Yagi Switch Relay Unit | **$324.95** |
| COM-STACK3A | Yagi Switch Control Console | **$124.95** |
| COM-STACK-3A-P | Yagi Switch System with Console and Relay Unit | **$449.90** |

DXE-DVA-160B-P

DXE-EC-DVA

DX ENGINEERING

## Dual Vertical Array Systems

The Dual Vertical Array is an easy-to-install two-element vertical antenna phasing system that offers great HF or 6M performance. It uses a new design to increase array efficiency by eliminating the wasteful dump port found on previous systems. These array relay units can handle 2 kW, with a front-to-back over 20 dB and up to 3 dB gain over a single vertical.

The Control Console is a 3-direction pattern selector that uses LEDs as directional indicators. The console requires 13.8 Vdc and uses 3-conductor 20 AWG control line. The EC-DVA is included with the Dual Vertical Array Systems and also available separately if you'd like to build your own custom control system.

The DX Engineering Dual Vertical Array systems are available for the 160, 80 and 40 meter bands. Other bands are available by special order.

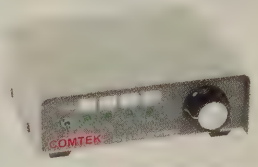
| | | |
|---|---|---|
| DXE-DVA-160B-P | Dual Vertical Array System, 160M | **$454.90** |
| DXE-DVA-80B-P | Dual Vertical Array System, 80M | **$439.90** |
| DXE-DVA-40B-P | Dual Vertical Array System, 40M | **$424.90** |
| DXE-EC-DVA | Control Console | **$124.95** |

## ACB-4 Four-Square Array Hybrid Systems for 4-Element Vertical Arrays

COMTEK SYSTEMS

COMTEK uses a time tested design to produce advanced antenna systems. These Four-Square Array Systems are affordable, simple to install, and easy to use. A Four-Square array consists of four vertical elements fed in a phase relationship and power ratio to obtain a directional pattern.

COMTEK 4-element vertical arrays provide great directivity. We offer the ACB-4 for each Amateur band from 160 meters to 10 meters. The ACB-4 is band specific, you cannot use an 80 meter ACB-4 for any band other than 80 meters.

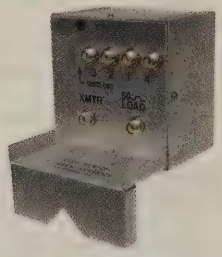



**Power Supply/Switch Control**

- Custom USA-made switch
- Current limiting resistor protection for each LED
- Chassis and cover custom manufactured to COMTEK specifications
- Label for recording favored directions
- Compact size: 2" H x 6.25" W x 5" D

**90 Degree Hybrid-Relay Matrix**

- 2 kW rating for Amateur SSB and CW
- 15 amp gold plated contact relays with dust covers
- PTFE silver stranded wire over fiberglass tape-wound toroids
- Balanced temperature, frequency, and voltage stable capacitors
- Double-sided printed circuit board
- MOVs for lightning surge protection with RF bypass caps
- Brushed aluminum Z-chassis and cover with riveted seams
- Includes mounting clamp



COM-ACB-20-A

| | | |
|---|---|---|
| COM-ACB-160-A | Hybrid Phased Array Four-Square System, 160M | **$485.95** |
| COM-ACB-80-A | Hybrid Phased Array Four-Square System, 80M | **$467.95** |
| COM-ACB-40-A | Hybrid Phased Array Four-Square System, 40M | **$456.90** |
| COM-ACB-30-A | Hybrid Phased Array Four-Square System, 30M | **$456.95** |
| COM-ACB-20-A | Hybrid Phased Array Four-Square System, 20M | **$447.95** |
| COM-ACB-15-A | Hybrid Phased Array Four-Square System, 15M | **$453.95** |
| COM-ACB-10-A | Hybrid Phased Array Four-Square System, 10M | **$461.95** |
| COM-ACB4A | ACB-4A Series Four-Square Control Console | **$139.95** |

DXE-TFS4-40B-P

DX ENGINEERING

## Transmit Four-Square Hybrid Controller— 4 Directions plus Omni

DX Engineering TFS4 Series B Transmit Four-Square Systems bring together the highest level of engineering excellence with the practical realities of operator convenience and ease of installation. They're available for the 160, 80 and 40 meter bands, and can be easily dropped-in to your quarter wave spaced vertical 4-antenna array for optimum directional control.

The systems allow you to receive or transmit with 5.5 dB gain in any one of four directions with a 20+ dB front-to-back ratio for interference reduction from unwanted directions. You can also switch to a single omni-directional pattern with a push of a button. That means you'll be able to listen "all-around," unhindered by pattern nulls, and then select the best direction for signal reception and noise rejection.

The TFS4 Series B Transmit Four-Square Systems are designed for use with a four monoband vertical antennas spaced at the corners of a square that are a one quarter wavelength on a side. The vertical antennas must be ungrounded and resonant in the desired band, and should be directly base-fed by the coaxial cable phasing lines from the centrally located controller. DX Engineering has vertical antennas that are well suited for this application. A properly designed and installed radial system is necessary for top antenna performance.

We recommend our optional Q75-series quarter wavelength cables. They're electronically pruned to a precise electrical length tailored to your operating frequency. The cables are terminated with hand-soldered silver-PTFE PL-259 connectors and weather-sealed with shrinkable tubing. Finally, each cable is tested for high voltage breakdown for maximum reliability and power handling. Since the transmit power is divided by the controller, the coaxial cable can handle maximum power with ease.

If you already have a four-square array with a hybrid controller and would like improved performance and add the omni feature, the DX Engineering TFS4 Series B Transmit Four-Square Systems are a simple upgrade. BCD logic switching allows for the use of a 4-wire control cable to perform the necessary switching functions when powered by the included DXE-CC-4SQR control console.

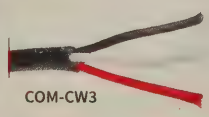
- Classic Hybrid design for easy installation
- 5 kW CW power rating for high reliability
- Hot switching lock-out feature disables amplifier while switching
- Simple upgrade for COMTEK SYSTEMS four-square array
- Proven high performance DX Engineering RF relays
- RF shielded, high impact thermoplastic cover offers unique protection
- Relays cycle during power-on to ensure clean contacts

| | | |
|---|---|---|
| DXE-TFS4-160B-P | 160 Meter Four-Square Controller with Control Console | **$704.90** |
| DXE-TFS4-80B-P | 80 Meter Four-Square Controller with Control Console | **$684.90** |
| DXE-TFS4-40B-P | 40 Meter Four-Square Controller with Control Console | **$674.90** |

**The Control Console is also available separately.**

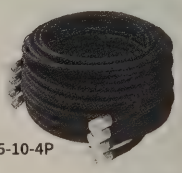
| | | |
|---|---|---|
| DXE-CC-4SQR | Transmit Four-Square Control Console | **$219.95** |

**DX Engineering Customer Support personnel will be happy to help you select all the components necessary for a complete installation.**



COM-CW3

COM-CW4



DXE-Q75-10-4P

## Hybrid Array Cables & Accessories

| | | |
|---|---|---|
| DXE-Q75-160-4P | Hybrid Array Cable, 160M, DXE-11U, PL-259 Connectors | **$491.80** |
| DXE-Q75-80-4P | Hybrid Array Cable, 80M, DXE-11U, PL-259 Connectors | **$359.80** |
| DXE-Q75-40-4P | Hybrid Array Cable, 40M, DXE-11U, PL-259 Connectors | **$279.80** |
| DXE-Q75-30-4P | Hybrid Array Cable, 30M, DXE-11U. PL-259 Connectors | **$255.80** |
| DXE-Q75-20-4P | Hybrid Array Cable, 20M, DXE-11U, PL-259 Connectors | **$247.80** |
| DXE-Q75-15-4P | Hybrid Array Cable, 15M, DXE-11U, PL-259 Connectors | **$239.80** |
| DXE-Q75-10-4P | Hybrid Array Cable, 10M, DXE-11U, PL-259 Connectors | **$231.80** |
| COM-CW3 | Control Cable, 3-20 AWG Wires, Black PVC Jacket | per foot **$0.25** |
| COM-CW3-1000 | COM-CW3 Control Cable, 1,000' Spool | **$197.95** |
| COM-CW4 | Cable, 4-Conductor | per foot **$0.45** |
| COM-CW4-500 | Cable, 4-Conductor, 500' Spool | **$165.95** |
| COM-VFA-1 | Vertical Feedpoint Assembly | **$16.95** |
| COM-VFA-4 | Vertical Feedpoint Assembly, Set of 4 | **$67.95** |
| DXE-RADP-3 | Stainless Steel Radial Plate with 20 Bolt Sets | **$57.95** |
| DXE-SSVC-2P | V-Saddle Clamp, Fits 1" to 2" Tube | **$12.45** |

DX ENGINEERING

### *Skyhawk™ and Skylark Antennas.*

The legendary Skyhawk and Skylark antennas have been mainstays of international DXers and distinguished HF contesters for years. Now, both antennas have been brought under the DX Engineering manufacturing umbrella. That means these highly regarded antennas are built to DX Engineering's unflinching quality standards. DX Engineering also carries all of the service parts you'll need to keep these antennas operating efficiently.

DXE-2X7

DXE-3X10

### *Skyhawk™ Yagi Antenna*

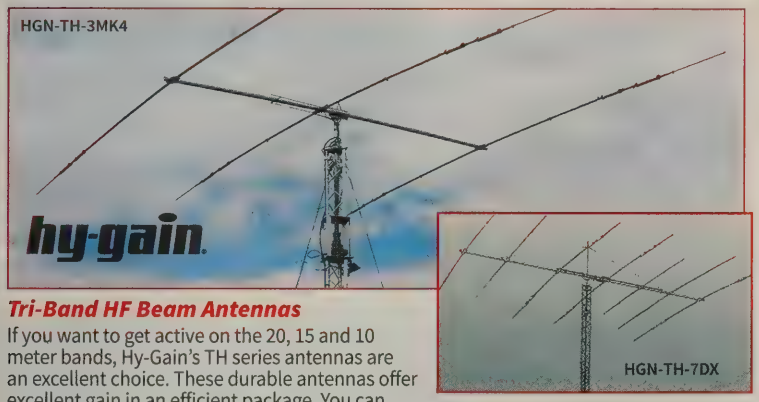
With over 7 dB gain on the 20 and 15 meter bands, plus over 9 dB on the 10 meter band, the DX Engineering Skyhawk has become the choice of experienced HF DXers. A trap-free design ensures the best bandwidth possible. The use of aluminum and stainless steel hardware keeps the antenna's overall weight down to around 75 pounds. The Skyhawk has a 23 foot boom. It is easy to build and tune, and comes with a 2,500 watt feedpoint choke.

DXE-3X10 Skyhawk Yagi Antenna ..... **$1,199.95**

### *Skylark™ Dual-Band Yagi*

You get almost 8 dB gain on the 17 and 12 meter bands with the DX Engineering Skylark. The antenna also provides an SWR under 1.3 to 1 across each band, plus a front-to-back over 20 dB. It handles the legal limit plus! The Skylark's simple design eliminates any moving parts, which contributes to all-weather reliability. Aluminum elements and stainless steel hardware also promote corrosion resistance. With a boom length of just 16 feet, the Skylark can handle winds up to 90 mph. A feedpoint choke is included.

DXE-2X7 Skylark Dual-Band Yagi ..... **$850.00**




HGN-TH-3MK4

HGN-TH-7DX

### *Tri-Band HF Beam Antennas*

If you want to get active on the 20, 15 and 10 meter bands, Hy-Gain's TH series antennas are an excellent choice. These durable antennas offer excellent gain in an efficient package. You can select the right-sized antenna for your specific installation, whether it's on a rooftop or a tower. These lightweight, multi-element Yagis also feature aluminum tubing for reduced stress on your rotator. Visit DXEngineering.com for the complete specs.

| | | |
|---|---|---|
| HGN-TH-3JRS | Tri-Band Yagi, 3-Element, 600 W, 8 dBi Gain | **$369.95** |
| HGN-TH-3MK4 | Tri-Band Yagi, 3-Element, 1,500 W, 8 dBi Gain | **$479.95** |
| HGN-TH-5MK2 | Tri-Band Yagi, 5-Element, 1,500 W, 9 dBi Gain | **$769.95** |
| HGN-TH-7DX | Tri-Band Yagi, 7-Element, 1,500 W, 9.6 dBi Gain | **$849.95** |

### *HF Beam Antenna*

Start hunting DX on 20, 15 and 10 meter bands with this high-performance and high-efficiency antenna. The antenna has a small turning radius, perfect for operators seeking a legal-limit solution for a directional gain antenna and boasts 7.5 to 8.8 dB gain. With an impressive 2:1 SWR or less across most of its operating range, you still get excellent bandwidth. For more versatility, add the optional 30 or 40 meter kit.

HGN-EXP-14 HF Beam Antenna ..... **$599.95**

HGN-QK-710 Add-On Kit for 30 or 40 Meters ..... **$179.95**

DX ENGINEERING

DXE-PS-2B

### *DXE-PS-2B PRO-STACK Broadband Two Antenna Phasing System*

The PS-2B PRO-STACK combines two identical Yagi, log periodic or vertical antennas in a phased arrangement. It is a broadband system that operates from 160 through 10 meters with no need for coaxial delay lines. The PS-2B can be used in applications requiring these four basic antenna feed selections (impedance matching automatically changes when any antenna port is disconnected).

- Both antenna ports in-phase (default)
- Both antenna ports out-of-phase
- Antenna port 1 only
- Antenna port 2 only

Control Console

**Additional Applications**

- **Scalable Multi-Antenna Systems**-The PS-2B easily adapts to larger arrays. For example, four stacked Yagis can be combined by creating two sets of two and using a third PS-2B to combine the first two sets.
- **Phased Verticals**-The system can feed three vertical antennas in a four-pattern array. In this arrangement, the three antennas are individual quarter-wave resonant antennas. The center #2 passive element must be directly grounded at all times. Elements #1 and #3 are then fed in various phase relationships.

**Additional Features**

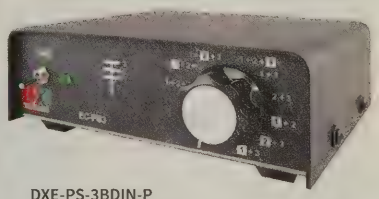
- 50 Ω system—switched by applying 12-15 volts DC to three control wires
- Power handling up to 5 kW
- High-impact RF-shielded cover
- High RF-tolerant, silver-PTFE UHF connectors
- Proven high-performance DX Engineering RF Relays
- Safe 12-volt relay operation
- MOV surge protection on control lines
- RoHS-compliant

| | | |
|---|---|---|
| DXE-PS-2B | PRO-STACK Broadband Antenna Switch | **$538.95** |
| DXE-PS-2B-P | PRO-STACK Two Antenna Phasing System, SO-239 Connectors | **$663.90** |
| DXE-PS-2BDIN-P | PRO-STACK Two Antenna Phasing System, 7-16 DIN Connectors | **$743.90** |

**The Control Console is also available separately.**

DXE-EC-PS2 PRO-STACK Control Console ..... **$124.95**

**Note: Information on the appropriate separation between stacked Yagi antennas in versatile, high-performance array is discussed fully in the ARRL Antenna Book. Generally, stacked Yagi antennas are separated vertically by greater than 1/2-wavelength free space.**



DXE-PS-3BDIN-P

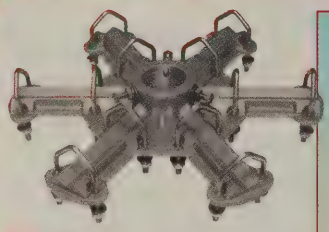
DX ENGINEERING

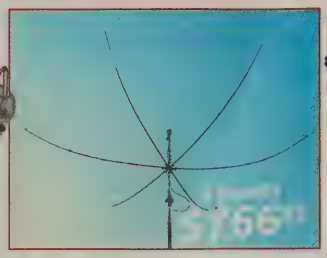
### *PRO-STACK Three Antenna Phasing Systems*

DX Engineering's PRO-STACK phasing systems allow you to combine identical Yagi, Log Periodic Beam or quarter-wave vertical for enhanced performance. The systems promote broadband coverage of the 160-10M bands in a dozen in- and out-of-phase antenna configurations. This system provides impressive nulls (up to 40 dB!), so you can ward off unwanted signals and snag that rarest-of-rare QSO.

The system consists of a relay unit and control console; each component is also available separately. PRO-STACK systems will easily handle the full legal limit and are powered by any 12 Vdc source. Nine-conductor control cable is required for operation. Choose your system based on the connector type you prefer: 7-16 DIN, SO-239, or type N. Use keywords "PRO-STACK" at DXEngineering.com for the details.

| | | |
|---|---|---|
| DXE-PS-3B-P | PRO-STACK Three Antenna Phasing System, SO-239 Connectors | **$824.90** |
| DXE-PS-3BDIN-P | PRO-STACK Three Antenna Phasing System, 7-16 DIN Connectors | **$924.90** |





DX ENGINEERING

HEXXAGONAL BEAM

### HEXX Beam Antenna Kits

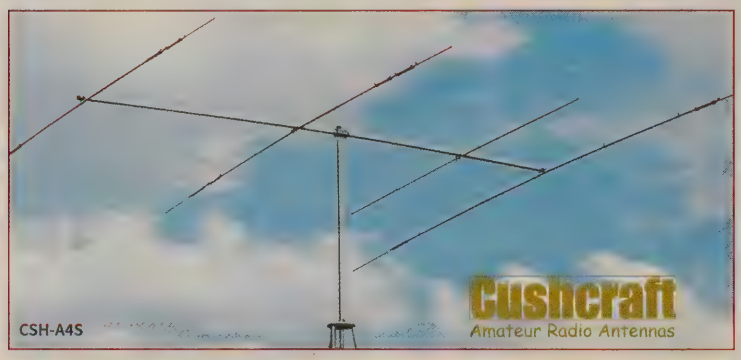
DX Engineering's Hexxagonal Beam Mark II antenna and related kits are based on the G3TXQ design with a broadband, u-shaped reflector. That means you'll have better coverage of the 20, 17, 15, 12 and 10 meter bands with low SWR. These packages are your ticket to a versatile, small and lightweight directional HF beam antenna.

DX Engineering's design offers better gain and improved front-to-back performance with a lower SWR, and it uses our patented* stainless/PTFE rigid balanced feedpoint system. The feedpoint system provides balanced, 50 Ω connections to the wire elements, eliminating the need for special waterproofing.

You can select from two complete kits for either single or multi-band operation, or you can purchase each component separately to custom build or retrofit an antenna to your unique specifications.

*US Patent D624,060

| | | |
|---|---|---|
| DXE-HEXX-5TAP-2 | 20/17/15/12/10M 5-Band Hexxagonal Beam Antenna Kit, Mark II | $766.95 |
| DXE-HEXX-1TAP-2 | Single Band, Pre-cut for 20M, Total Antenna Kit, Mark I | $484.95 |
| DXE-HEXX-5FFP | 5-Band Rigid Feedpoint System | $209.95 |
| DXE-HEXX-1HBP | Hexx Hub Kit | $129.95 |
| DXE-HEXX-5WRP-2 | 5-Band Pre-Cut Wire Element and Guide Kit, Mark II | $191.95 |
| DXE-HEXX-1WRP-2 | Single-Band Wire Element and Guide Kit, Mark II | $119.95 |
| DXE-HEXX-1SCP-2 | Spreader and Center Post Kit, Mark II | $254.95 |
| DXE-HEXX-SR-2 | Hexx Beam Single Spreader Replacement Kit | $49.95 |




### HF Yagi Antennas

Precisely tuned high-power traps, carefully selected element lengths and proper spacing combine to make Cushcraft's Yagis and Beams the preferred antennas for your HF work. High-gain, low SWR and wide bandwidth keep the contacts coming in. Gain figures are based off the highest peak rating; find comprehensive specs at DXEngineering.com.

U-bolts, clamps and hardware are included. Optional add-on kits are available for 30 or 40 meter coverage.

| Part Number | Band(s) | Gain | Elements | Boom | Price |
|---|---|---|---|---|---|
| CSH-XM240 | 40M | 6.0 dBi | 2 | 22' | $939.95 |
| CSH-TEN3 | 10M | 8.0 dBi | 3 | 8' | $289.95 |
| CSH-A3WS | 17/12M | 8.0 dBi | 3 | 14' | $499.95 |
| CSH-A3S | 20/15/10M | 8.0 dBi | 3 | 14' | $599.95 |
| CSH-A4S | 20/15/10M | 8.9 dBi | 4 | 18' | $699.95 |
| CSH-X7 | 20/15/10M | 13.0 dBi | 7 | 18' | $999.95 |
| CSH-MA5B | 20/17/15/12/10M | 5.3 dBi | 2 | 9.75' | $499.95 |
| **Add-On Kits** | | | | | |
| CSH-X740 | 40M | Add-On Kit for CSH-X7 | | | $369.95 |
| CSH-A744 | 40/30M | Add-On Kit for CSH-A4, A4S | | | $199.95 |
| CSH-A103 | 30M | Add-On Kit for CSH-A3WS | | | $189.95 |

### X7 Big Thunder Triband Yagi Antenna

The X7 Triband Yagi sets new standards in both radiating performance and mechanical reliability. Each mechanical component is designed to survive 100+ mph winds with a 1.25 safety factor. The new 4L Log Cell design eliminates traps from the high current driven elements and reflectors, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high-performance antenna that will easily handle the legal limit.

| | | |
|---|---|---|
| CSH-X7 | 7-Element Beam, 12.5/13 dB with Ground Reflection | $999.95 |
| CSH-X740 | 40M Add-on Kit for X7 | $369.95 |

### XM240 Big Thunder 40M Monoband Antenna

Cushcraft's XM240 monobander utilizes rugged Big Thunder and high strength aluminum tubing that gives the antenna outstanding wind survivability. Phillystran boom trusses provide extra boom stability. The feed system is a 50 Ω direct feed; VSWR is flat across the band. A high-power 1:1 balun is included. Excellent front-to-back ratio and gain makes the XM240 the right choice for both DX and stacking.

| | | |
|---|---|---|
| CSH-XM240 | 40M, 2-Element Beam, 6 dB, 22' Boom | $939.95 |

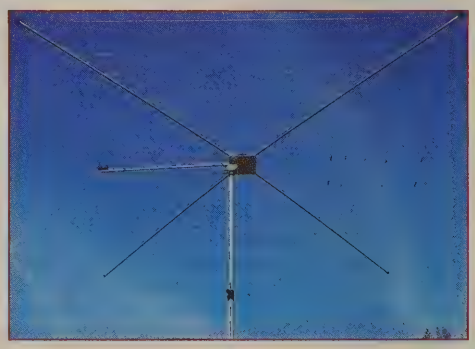
Cushcraft
Amateur Radio Antennas

### MA5B Compact Multi-Band HF Antenna

Cushcraft's multi-band HF antenna provides 5-band operation in a package small enough to mount to a tripod. The MA5B does not sacrifice ruggedness, performance and power handling for size and ease of installation.

| | | |
|---|---|---|
| CSH-MA5B | 20-10M 5-Band Mini Beam | $499.95 |

MFJ



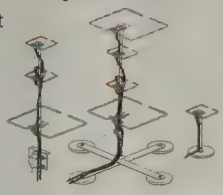
### 5-Band HF Cobweb Antennas

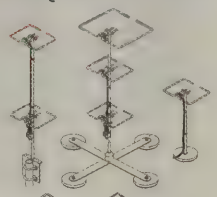
Covering the 20, 17, 15, 12 and 10 meter bands, MFJ's Cobweb Antennas are a terrific solution to small spaces and restrictive HOAs. These compact antennas cover a mere 10 x 10 foot square and have a slim design that's nearly invisible to the eye. Their low profile and light weight (around 8 pounds) also makes them very resilient to wind.

These Cobwebs are horizontally polarized and you'll generally hear less local QRN. Their radiation pattern is nearly omni-directional so a rotator isn't necessary—and you won't need to install radials either.

| | | |
|---|---|---|
| MFJ-1835 | 5-Band Cobweb Antenna, 300 Watts | $219.95 |
| MFJ-1835H | 5-Band Cobweb Antenna, 1,500 Watts | $249.95 |

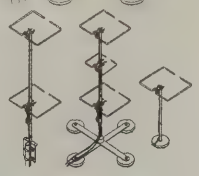
## HO LOOP Antennas


MSQ-70CMHOLOOP


MSQ-222HOLOOP

These antennas give you excellent SSB and CW communications with a reach of over 200 miles. Excellent for mobile or base weak-signal stations, these antennas offer omnidirectional coverage without a rotator. HO LOOP Antennas' horizontal polarity means you get upwards of 5 dB ground gain over a traditional vertical antenna. Plus, the higher you mount your HO LOOP, the more gain you achieve.

The Mast Bracket kit allows you to install your HO LOOP antenna on any 1.25 to 2 inch diameter mast. It includes all the brackets, cradles and hardware you'll need. For 6M HO LOOP antennas, be sure to order the additional support bracket. Stacked gain with optional items.


MSQ-2MHOLOOP

| | | |
|---|---|---|
| MSQ-2MHOLOOP | 2M HO LOOP, 4 dBd Gain (10')/8 dBd Gain (6.83' & 11') | **$94.95** |
| MSQ-6MHOLOOP | 6M HO LOOP, 4.2 dBd Gain (11')/8.2 dBd Gain (40' and 52') | **$157.95** |
| MSQ-70CMHOLOOP | 432 MHz/70cm HO LOOP, 5 dBd Gain (7.17')/8.8 dBd Gain (7' and 8.3') | **$73.95** |
| MSQ-222HOLOOP | 1.25M HO LOOP, 4.7 dBd Gain (7')/8.2 dBd Gain (7' and 9.75') | **$94.95** |
| MSQ-MASTBRKTKIT | HO LOOP Base Installation Hardware | **$29.95** |

## M2 Antennas Power Dividers

Add 3 dB gain with two antennas and nearly 6 dB gain with four antennas using M2 Antennas Power Dividers on properly spaced VHF and UHF stacked arrays. These non-isolation RF combiners match impedances for two or four Loop or Yagi antennas fed in phase with equal lengths of 50 Ω coax.

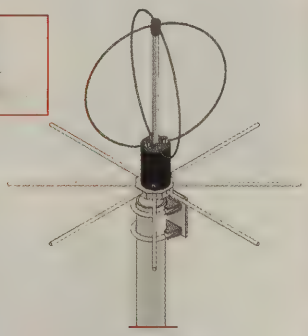
MSQ-2222PRTPD

They feature Type N connectors and are rated at 3 kW. The 6 meter models are made with low loss coax and all other band models are aluminum tubing, blocks and solid metal center conductors with air dielectric for nearly immeasurable loss of less than 0.1 dB. Each pair of stacked antennas nearly doubles the effective radiated power of your station!

Find the right Power Divider for your application at DXEngineering.com.

## Eggbeater Satellite Antennas

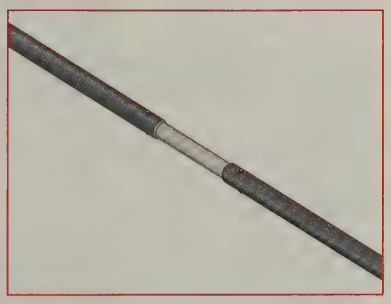
Shoot for the stars with antennas that let you contact other Hams using Amateur Satellites and communicate directly with the International Space Station! These antennas are equally effective in your base or mobile station. They produce smooth, omnidirectional horizontal polarity patterns at the horizon. Above the horizon, the pattern transforms to right-hand circular for excellent OSCAR communications. The small physical footprint of these antennas allows many mounting options at a budget-friendly price.


MSQ-EB432RK70CM

A Satellite Antenna Package is available that includes the 2M and 70cm antennas, a cross boom VHF/UHF kit and mounting hardware—practically everything you'll need to open up a new world of Amateur communications. Visit DXEngineering.com for complete details.

| | | |
|---|---|---|
| MSQ-EB144RK2M | Satellite Eggbeater Antenna, 2 Meter Band | **$272.95** |
| MSQ-EB432RK70CM | Satellite Eggbeater Antenna, 70cm Band | **$251.95** |
| MSQ-SATPACK1 | Satellite Antenna Package, 2M and 70cm, Cross Boom | **$514.95** |

## Installation, Upgrade and Antenna Building Hardware



M2 Antennas offers several installation, repair and upgrade parts for your station. Its Cross Boom helps you mount multiple Yagi (or Eggbeater) antennas, and it is available with heavy duty aluminum and fiberglass construction that won't distort your antenna patterns. You can also get boom insulators and clips to complete your installation. Find all the pieces available at DXEngineering.com.

| | | |
|---|---|---|
| MSQ-CB60 | Satellite Antenna Cross Boom, Heavy Duty, 11' | **$251.95** |
| MSQ-BUTTON001 | Beam Hardware Button Insulators, Bag of 50 | **$10.95** |
| MSQ-KEEPER001 | Beam Hardware Retainer Clips, Bag of 50 | **$20.95** |

MSQ-6M5XHP

## VHF/UHF Antennas

M2 Antennas uses computer modeling technology, weather resistant materials and CNC-machined elements to create the best performing antennas possible. Here is the complete line of its VHF/UHF offering. Find full details at DXEngineering.com.

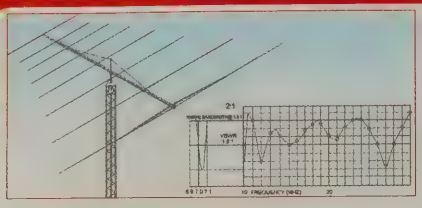
| Part Number | Band | Gain | Elements | Boom | Price |
|---|---|---|---|---|---|
| **Yagi Antennas** | | | | | |
| MSQ-6M3 | 6M | 8.2 dBi | 3 | 6.8' | **$241.95** |
| MSQ-6M3SS | 6M | 8.1 dBi | 3 | 5.5' | **$209.95** |
| MSQ-6M5XHP | 6M | 11.5 dBi | 5 | 18' | **$493.95** |
| MSQ-6M7JHV | 6M | 13 dBi | 7 | 34.5' | **$524.95** |
| MSQ-6M9KHWA | 6M | 14.8 dBi | 9 | 49.3' | **$1,091.95** |
| MSQ-2M3SS | 2M | 8.3 dBi | 3 | 3.1' | **$120.95** |
| MSQ-2M4 | 2M | 9.6 dBi | 4 | 4' | **$157.95** |
| MSQ-2M7 | 2M | 12.3 dBi | 7 | 8.9' | **$178.95** |
| MSQ-2M9SSBFM | 2M | 14.1 dBi | 9 | 14.5' | **$283.95** |
| MSQ-2M12 | 2M | 14.6 dBi | 12 | 19.5' | **$293.95** |
| MSQ-2M5WL | 2M | 16.8 dBi | 17 | 33.1' | **$461.95** |
| MSQ-2M18XXX | 2M | 17.1 dBi | 18 | 36.5' | **$493.95** |
| MSQ-2225SS | 1.25M | 10.3 dBi | 5 | 3' | **$115.95** |
| MSQ-22210EZ | 1.25M | 14.4 dBi | 10 | 9.75' | **$188.95** |
| MSQ-2225WL | 1.25M | 17.4 dBi | 15 | 23.3' | **$293.95** |
| MSQ-4406SS | 70cm | 11 dBi | 6 | 3' | **$94.95** |
| MSQ-4205011 | 70cm | 13.4 dBi | 11 | 5' | **$178.95** |
| MSQ-43212EME | 70cm | 16.4 dBi | 12 | 9.67' | **$178.95** |
| MSQ-44018 | 70cm | 16.6 dBi | 18 | 11' | **$209.95** |
| MSQ-432-6WL | 70cm | 18 dBi | 21 | 14.5' | **$230.95** |
| MSQ-4329WL | 70cm | 19.4 dBi | 28 | 21' | **$304.95** |
| MSQ-43213WLA | 70cm | 20.5 dBi | 38 | 30.4' | **$440.95** |
| MSQ-9029 | 33cm | 14.2 dBi | 9 | 3' | **$67.95** |
| MSQ-90217 | 33cm | 17 dBi | 17 | 6.17' | **$79.95** |
| MSQ-23CM22EZA | 23cm | 18.2 dBi | 22 | 5.83' | **$272.95** |
| MSQ-23CM35 | 23cm | 20.9 dBi | 35 | 10' | **$293.95** |
| **Dual Polarity Beam Antennas** | | | | | |
| MSQ-2MXP20 | 2M | 15.3 dBi | 20 | 21.6' | **$367.95** |
| MSQ-2MXP28 | 2M | 17.2 dBi | 28 | 34.5' | **$577.95** |
| MSQ-2MXP32 | 2M | 17.9 dBi | 32 | 41' | **$650.95** |
| **Circular Polarity Beam Antennas** | | | | | |
| MSQ-2MCP14 | 2M | 12.3 dBic | 14 | 10.5' | **$335.95** |
| MSQ-2MCP22 | 2M | 14.4 dBic | 22 | 18.6' | **$493.95** |
| MSQ-436CP30 | 70cm | 15.5 dBic | 30 | 9.75' | **$325.95** |
| MSQ-436CP42UG | 70cm | 18.9 dBic | 42 | 18.9' | **$461.95** |

## Polarity Switch Kits

Polarity switches modify the performance of your circularly polarized antenna, so you can change between right and left hand circular polarization. These kits are specialized replacement driven elements with built-in relays that work for M2 Antennas circularly polarized antennas only.

The kits include the element, relay, a low-loss coaxial switch and all related hardware. Installation is easy and if you plan to build a new setup, you may want to incorporate a polarity switch right from the beginning.

| | | |
|---|---|---|
| MSQ-PS2M | Polarity Switch Kit, 2 Meter Band | **$241.95** |
| MSQ-PS70CM | Polarity Switch Kit, 70cm Band | **$220.95** |

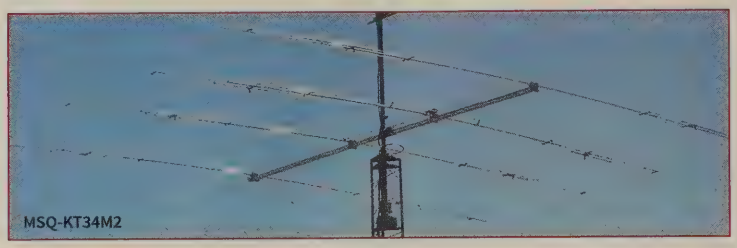


## HF Log Periodic Antennas

Get excellent multi-band performance in a single antenna with these LPDA antennas from M2. They'll handle 3,000 watts and include a 4:1 balun. These versatile antennas cover multiple bands without the need for traps and are made to deliver years of reliable service in almost any environment.

The 1030LP8 antenna gets you on the 30, 20, 17, 15, 12 and 10 meter bands with low SWR and an excellent front-to-back ratio with 5.2 dBi of gain. For an antenna that adds 40 meter coverage for a total of seven bands, check out the MSQ-71030LP8. Both antennas have a 29.5 foot boom and a wind surface area of just 13 square feet.

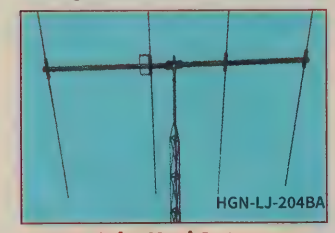
MSQ-1030LP8 Six-Band HF Log Periodic Antenna ..... **$2,519.95**
MSQ-71030LP8 Seven-Band HF Log Periodic Antenna ..... **$2,876.95**

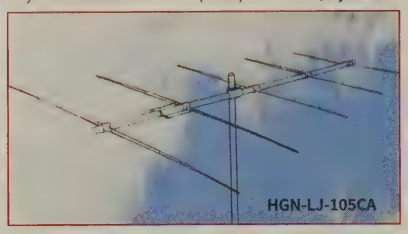

MSQ-KT34M2

## HF Tri-Band Beam Antennas

If you want to get on the 20, 15 and 10 meter HF bands, but don't have the real estate for multiple towers, then these tri-band antennas are your solution. They pack a lot of performance into a versatile and rugged package. They can also handle 3,000 watts, so you get effective coverage on several bands. A balun is included.

MSQ-KT34M2 Tri-Band, 4-Element, 7.5 dBi Max. Gain (10M) ..... **$1,732.95**
MSQ-KT36XA Tri-Band, 6-Element, 10.5 dBi Max. Gain (10M) ..... **$2,467.95**


HGN-LJ-204BA


HGN-LJ-105CA

## Long John Yagi Antennas

Perfect for the DXer or contester, these HF beam antennas from Hy-Gain are factory-tuned to offer no-compromise performance on a specific band. These antennas also work quite well in a stacked configuration. Designed to fit a 2" OD mast, they easily handle 1,500 watts and feature full-size elements. The antennas' aluminum tubing and stainless steel hardware contributes to excellent all-weather durability. For optimal performance, DX Engineering recommends a 50 Ω balun be installed at the feedpoint.

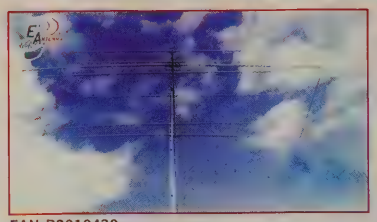
| Part Number | Band(s) | Gain | Boom Length | Max. F/B | Number of Elements | Price |
|---|---|---|---|---|---|---|
| HGN-LJ-103BA | 10M | 7.5 dBi | 8' | 24 dB | 3 | **$179.95** |
| HGN-LJ-105CA | 10M | 10.7 dBi | 24' | 36 dB | 5 | **$289.95** |
| HGN-LJ-153BA | 15M | 7.9 dBi | 12' | 25 dB | 3 | **$219.95** |
| HGN-LJ-155CA | 15M/12M | 9.7 dBi | 26' | 25 dB | 5 | **$429.95** |
| HGN-LJ-203BA | 20M | 7.3 dBi | 17' | 23 dB | 3 | **$319.95** |
| HGN-LJ-204BA | 20M/17M | 8.2 dBi | 26' | 28 dB | 4 | **$499.95** |
| HGN-LJ-205CA | 20M/17M | 8.7 dBi | 34' | 30 dB | 5 | **$769.95** |

Cushcraft
Amateur Radio Antennas

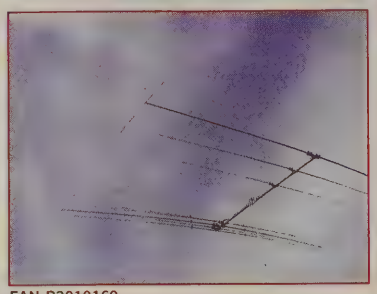
## Rotatable Dipole Antennas

The World Ranger dipoles provide bi-directional patterns with rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing and rugged hardware for years of enjoyment.

| Part Number | Band(s) | Gain | Turning Radius | Price |
|---|---|---|---|---|
| CSH-D3 | 20/15/10M | 2.1 dBi | 12.9' | **$369.95** |
| CSH-D3W | 30/17/12M | 2.1 dBi | 17' | **$369.95** |
| CSH-D4 | 40/20/15/10M | 2.1 dBi | 17.9' | **$399.95** |
| CSH-D40 | 40M | 2.1 dBi | 21.1' | **$399.95** |


EAN-R2010420

EAN-R2010157


EAN-R2010169

EAN-R2010156

EAN-R2010701

EAN-R2010716

EAN-R2010702

EAN-R2010704

EAntenna

## Rotatable HF Antennas

Eantenna's HF options include Yagi, log periodic, delta loop and dipole antennas. In most cases, they'll handle the full legal limit, making them an excellent choice for HF DXing and contesting. With uncompromising manufacturing standards and cutting-edge designs, EAntenna products are smart, long-term HF antenna investments. Find the full specs at DXEngineering.com.

| Part Number | Band(s) | Max. Gain | Boom Length | Price |
|---|---|---|---|---|
| EAN-R2010420 | 20/15/10M | 6.2 dBi | 10.43' | **$489.95** |
| EAN-R2010157 | 20/15/10M | 7 dBi | 12.5' | **$885.95** |
| EAN-R2010169 | 20/17/15/12/10M | 7 dBi | 12.5' | **$1,049.95** |
| EAN-R2010156 | 20/17/15/12/10M | 8 dBi | 18.85' | **$1,519.95** |
| EAN-R2010701 | 30/17/12M | 3 dBi | 20.32' | **$615.95** |
| EAN-R2010716 | 30M | 2.15 dBi | 14.92' | **$379.95** |
| EAN-R2010702 | 40M | 2.15 dBi | 19.68' | **$455.95** |
| EAN-R2010704 | 40M | 6.5 dBi | 18.36' | **$1,039.95** |
| EAN-R2010706 | 40M | 7.5 dBi | 33' | **$1,315.95** |

## Delta Loop Antennas

A delta loop antenna is an efficient way to get directional multi-band HF coverage, without installing a large HF Yagi or dipole. Made with aluminum tubing, these lightweight antennas are full-size vertical loops that deliver excellent low noise characteristics. When installed with a rotator, you can peak or null signals for the best reception. Both antennas handle 1,000 watts and require an antenna tuner. Check out the antenna tuners section of this catalog for compatible models. Wide range tuner required.

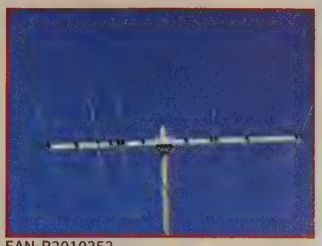
| Part Number | Bands | Gain | Price |
|---|---|---|---|
| EAN-R2010201 | 40/30/20/17/15/12/10M | 6.8 dBi | **$309.95** |
| EAN-R2010202 | 20/17/15/12/10M | 6.5 dBi | **$259.95** |

## 6 Meter Rectangular Quad Loop Antennas

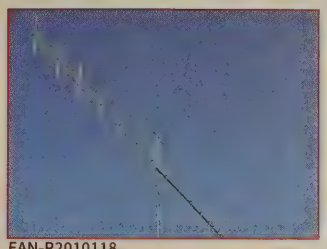
Rule the "Magic Band" with a rugged loop antenna. These antennas capitalize on the time-tested quad loop design to give you impressive performance with a relatively small, easy-to-rotate antenna.

| Part Number | Max. Gain | Max. F/B | Boom Length | Price |
|---|---|---|---|---|
| EAN-R2010451 | 9.5 dBi | 13.6 dB | 7.7' | **$259.95** |
| EAN-R2010450 | 6.7 dBi | 22.85 dB | 9.53' | **$149.95** |
| EAN-R2010452 | 10.74 dBi | 34.58 dB | 14.39' | **$345.95** |

EAN-R2010119



EAN-R2010252

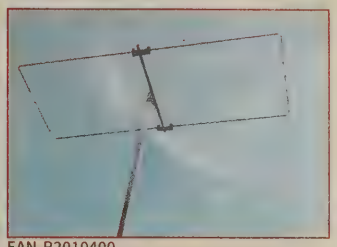


EAN-R2010118

EAN-R2010120

EAN-R2010251

EAN-R2010149



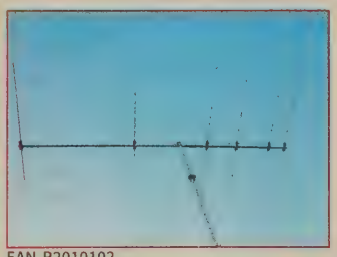
EAN-R2010400

## VHF and UHF Directional Antennas

These antennas are built with only the highest quality stainless steel hardware and aircraft grade aluminum, using cutting-edge computer modeling and optimization techniques. EAntenna's precision construction results in state-of-the-art VHF and UHF antennas with excellent durability and wind survival capabilities.

| Part Number | Band(s) | Max. Gain | Max. F/B | Boom Length | Price |
|---|---|---|---|---|---|
| EAN-R2010119 | 70cm | 18 dBi | 42.3 dB | 14.1' | **$229.95** |
| EAN-R2010107 | 70cm | 19.2 dBi | 37.5 dB | 19.34' | **$325.95** |
| EAN-R2010120 | 70cm | 20.5 dBi | 44.3 dB | 27' | **$365.95** |
| EAN-R2010250 | 2M/70cm | 8.4 dBi | 11 dB | 2.30' | **$75.95** |
| EAN-R2010251 | 2M/70cm | 10.7 dBi | 11.7 dB | 3.94' | **$95.95** |
| EAN-R2010252 | 2M/70cm | 10.7 dBi | 18.7 dB | 4.95' | **$109.95** |
| EAN-R2010105 | 2M | 11.1 dBi | 19 dB | 5.97' | **$129.95** |
| EAN-R2010110 | 2M | 12.8 dBi | 22.5 dB | 9.67' | **$179.95** |
| EAN-R2010149 | 2M | 14.2 dBi | 25.2 dB | 14.75' | **$239.95** |
| EAN-R2010117 | 2M | 14.6 dBi | 28.6 dB | 16.39' | **$219.95** |
| EAN-R2010103 | 2M | 15.3 dBi | 28.6 dB | 20.16' | **$299.95** |
| EAN-R2010130 | 2M | 16.0 dBi | 26.4 dB | 25.9' | **$355.95** |
| EAN-R2010118 | 2M | 17.4 dBi | 34 dB | 35.8' | **$409.95** |
| EAN-R2010253 | 6/4/2M | 7.7 dBi | 10.8 dB | 4.1' | **$159.95** |
| EAN-R2010152 | 6/4M | 11.2 dBi | 17.2 dB | 16.2' | **$409.95** |
| EAN-R2010400 | 6M | 6 dBi | 25 dB | 2.95' | **$105.95** |
| EAN-R2010106 | 6M | 9.4 dBi | 23 dB | 5.1' | **$259.95** |
| EAN-R2010109 | 6M | 8.6 dBi | 14.4 dB | 4.6' | **$185.95** |
| EAN-R2010102 | 6M | 10.6 dBi | 24.8 dB | 14.68' | **$275.95** |
| EAN-R2010116 | 6M | 11.3 dBi | 25.0 dB | 18.75' | **$319.95** |
| EAN-R2010115 | 6M | 11.8 dBi | 22.3 dB | 19.4' | **$369.95** |
| EAN-R2010113 | 6M | 12.0 dBi | 25.4 dB | 20.1' | **$375.95** |
| EAN-R2010114 | 6M | 12.0 dBi | 25.4 dB | 20.75' | **$379.95** |
| EAN-R2010108 | 6M | 11.8 dBi | 28 dB | 22.78' | **$405.95** |
| EAN-R2010111 | 6M | 12.9 dBi | 32 dB | 30.8' | **$509.95** |
| EAN-R2010150 | 6M | 14.1 dBi | 29.0 dB | 22.8' | **$729.95** |
| EAN-R2010124 | 6M | 12.3 dBi | 22.6 dB | 23.9' | **$465.95** |
| EAN-R2010123 | 6M | 14.7 dBi | 27.1 dB | 49.6' | **$899.95** |
| EAN-R2010104 | 6M | 15.3 dBi | 40.0 dB | 58.3' | **$1,045.95** |

EAN-R2010106



EAN-R2010102

EAN-R2010111

CSH-A506S

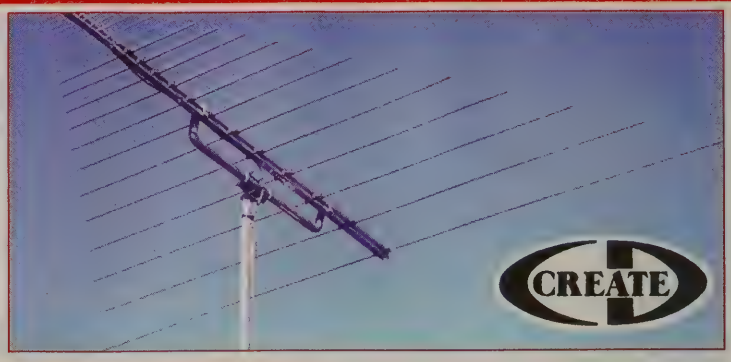
### VHF/UHF Yagi Antennas

Cushcraft engineers used computer-aided modeling and test range techniques to optimize the performance of these popular VHF and UHF Yagis. That means you get more gain and cleaner patterns with excellent front-to-back ratios. The gain figures listed below are based off the highest peak rating; find comprehensive specs at DXEngineering.com.

S-series antennas, denoted by an "S" at the end of the part number, have very broad bandwidth so they will not detune in bad weather. The S-series also features stainless steel hardware.

Cushcraft also makes Power Dividers to make it easy to stack these antennas, available in 2- or 4-antenna configurations. They serve as a T-harness; simply connect your incoming 50 Ω coax to the center and it splits your outgoing line in two.

| Part Number | Band(s) | Gain | Elements | Boom | Price |
|---|---|---|---|---|---|
| CSH-A503S | 6M | 8.0 dBi | 3 | 6' | **$139.95** |
| CSH-A505S | 6M | 10.5 dBi | 5 | 12' | **$189.95** |
| CSH-A506S | 6M | 11.6 dBi | 6 | 20' | **$389.95** |
| CSH-A627013S | 6M/2M/70cm | 10.0 dBi | 13 | 14' | **$279.95** |
| CSH-A2706S | 2M/70cm | 7.8 dBi | 6 | 2.8' | **$119.95** |
| CSH-A27010S | 2M/70cm | 10.0 dBi | 10 | 6.1' | **$159.95** |
| CSH-A1483S | 2M | 7.8 dBi | 3 | 2.8' | **$66.95** |
| CSH-A14810S | 2M | 13.3 dBi | 10 | 12' | **$129.95** |
| CSH-A14820T | 2M | 11.1 dBd | 20 | 11' | **$204.95** |
| CSH-A124WB | 2M | 10.2 dBi | 4 | 4' | **$109.95** |
| CSH-A13B2 | 2M | 15.8 dBi | 13 | 15' | **$239.95** |
| CSH-A26B2 | 2M | 18.8 dBi | 26 | 15' | **$589.95** |
| CSH-A17B2 | 2M | 18.0 dBi | 17 | 31' | **$349.95** |
| CSH-A224WB | 1.25M | 10.2 dBi | 4 | 3' | **$99.95** |
| CSH-A719B | 70cm | 15.5 dBd | 19 | 13.5' | **$229.95** |
| CSH-A43011S | 70cm | 13.2 dBi | 11 | 4.7' | **$109.95** |
| CSH-A4496S | 70cm | 10.5 dBi | 6 | 2.9' | **$79.95** |
| CSH-A44911S | 70cm | 13.2 dBi | 11 | 4.2' | **$109.95** |
| Power Dividers | | | | | |
| CSH-PD2 | Power Divider to Stack 2 VHF/UHF Antennas | | | | **$69.95** |
| CSH-PD4 | Power Divider to Stack 4 VHF/UHF Antennas | | | | **$89.95** |




### VHF/UHF Log Periodic Antennas

If you don't have the space (or friendly neighbors) to put up several VHF and UHF antennas, Create offers you an uncompromising single antenna option. Using 21 elements, the wideband directional CLP-5130-1N gets you on the 1.25, 2 and 6 meter bands, plus the 23, 33 and 70cm bands. It handles 500 watts and gives you an average gain of 10 dBi. With a 6.66 foot boom length, it's compact enough to go almost anywhere and at 11 pounds, it's perfect for most rotators. You can also use this antenna for VHF/UHF TV, FM broadcast, aviation and government communication applications. Create's CLP-5130-2N is similar to the 1N, except it provides 11 dBi of gain and doesn't offer coverage on the 6 meter band.

CAE-CLP-5130-1N VHF/UHF Log Periodic Antenna, 6-Band ..... **$519.95**
CAE-CLP-5130-2N VHF/UHF Log Periodic Antenna, 5-Band ..... **$379.95**

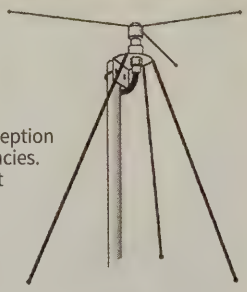
COMET

### DS-150S Discone Base Antenna

If you're living in an apartment where space is limited or in a community where larger antennas are frowned upon, then this compact antenna will let you stay in the game. It is less than five feet high and three feet wide, but covers 25 to 1300 MHz (receive). Transmitting is possible on the 6M, 2M, 70cm and 33cm bands, plus 1.2 GHz without a tuner. This antenna could be the perfect solution for your scanner or VHF/UHF transceiver.

CMA-DS-150S Discone Base Antenna.....**$104.95**

HUSTLER

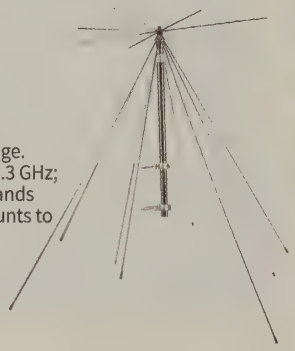


### Discone Base Station Scanner Antenna

Match this antenna to your scanner and get excellent reception on public service, aircraft, mobile and telephone frequencies. It's vertically polarized, covers 40 to 950 MHz and doesn't need adjusting. The antenna is 54 inches high with an 18 inch diameter. A 50 foot cable with a BNC male connector is included.

HSR-DCL-B Discone Base Station Antenna...**$48.95**

ICOM

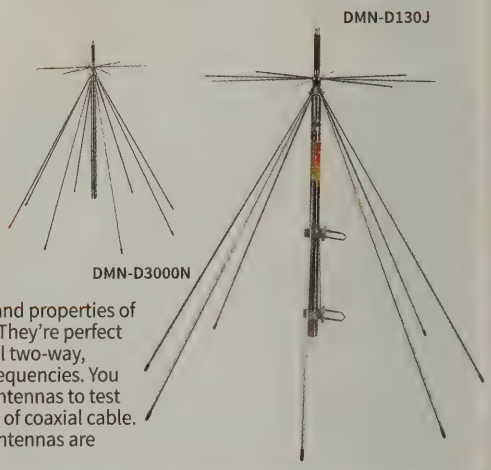


### Discone Antenna

Get super-wide frequency coverage in a compact package. This antenna has excellent reception from 100 MHz to 2.3 GHz; plus excellent transmit capabilities on many popular bands including 2M, 70cm and 23cm. It is only 3 feet high, mounts to any 2 inch mast and includes 49 feet of coax with an N connector.

ICO-AH-8000 Discone Antenna...**$269.95**

DIAMOND ANTENNA




### Mobile/Base Discone Antennas

Take advantages of the wideband properties of Diamond's Discone Antennas. They're perfect for Amateur Radio, commercial two-way, cellular, air traffic and utility frequencies. You can also use these as "shop" antennas to test your transmitters with one run of coaxial cable. These versatile, yet compact antennas are rust-resistant and durable.

| Part Number | Description | Height | TX Frequency | RX Frequency | Price |
|---|---|---|---|---|---|
| DMN-D130J | Super Discone, SO-239, Base | 66.9" | 50-1300 MHz | 25-1300 MHz | **$95.95** |
| DMN-D130NJ | Super Discone, Type N, Base | 66.9" | 50-1300 MHz | 25-1300 MHz | **$95.95** |
| DMN-D3000N | Super Discone, Type N, Base | 66.9" | 50-1200 MHz | 25-3000 MHz | **$149.95** |
| DMN-D220 | Mobile* Discone, SO-239, Scanner | 35.5" | 144-1300 MHz | 100-1300 MHz | **$109.95** |

*Designed for Diamond's K400S, K400C, K600M and K600S Mobile Mounts

DIAMOND ANTENNA

## More Diamond Base/Repeater Antennas

Find Complete Specs at DXEngineering.com

**Multi-Band Resonant Vertical Antennas** (1.4" to 2.4" OD Mast Required)

| Part Number | Bands | Height | Power Rating | Price |
|---|---|---|---|---|
| DMN-CP5H | 40/10/15/6M | 11.7' | 500 Watts | $379.95 |
| DMN-CP6AR | 80/40/15/10/6M | 15.1' | 200 Watts | $419.95 |
| DMN-CP610 | 10/6M | 22.0' | 500 Watts | $239.95 |

**Monoband Base/Repeater Antennas** (1.25" to 2.4" OD Mast Required)

| Part Number | Band | Height | Power Rating | Gain | Price |
|---|---|---|---|---|---|
| DMN-CP62 | 6 Meter | 22.0' | 200 Watts | 5.5 dBi | $199.95 |
| DMN-CP22E | 2 Meter | 8.9' | 200 Watts | 6.5 dBi | $54.95 |
| DMN-F22A | 2 Meter | 10.5' | 200 Watts | 6.71 dBi | $94.95 |
| DMN-F23H | 2 Meter | 15' | 350 Watts | 7.8 dBi | $159.95 |
| DMN-F718A | 70cm | 15' | 250 Watts | 11.5 dBi | $219.95 |
| DMN-F1230AII | 23cm | 11.5' | 100 Watts | 13.8 dBi | $174.95 |
| DMN-G200 | 2.4-2.5 GHz (Wi-Fi) | 4.83' | 10 Watts | 11 dBi | $214.95 |

**Dual-Band Base/Repeater Antennas** (1.25" to 2.4" OD Mast Required)

| Part Number | Bands (Connector) | Height | Power Rating | Gain | Price |
|---|---|---|---|---|---|
| DMN-X30A | 2M/70cm (SO-239) | 4.5' | 150 Watts | 3 dBi (2M) 5.5 dBi (70cm) | $69.95 |
| DMN-X50A | 2M/70cm (SO-239) | 5.6' | 200 W (2M) 250 W (70cm) | 4.5 dBi (2M) 7.2 dBi (70cm) | $94.95 |
| DMN-X50NA | 2M/70cm (Type N) | 5.6' | 200 W (2M) 250 W (70cm) | 4.5 dBi (2M) 7.2 dBi (70cm) | $94.95 |
| DMN-X200A | 2M/70cm (SO-239) | 8.3' | 200 Watts | 6 dBi (2M) 8 dBi (70cm) | $124.95 |
| DMN-X300A | 2M/70cm (SO-239) | 10' | 200 Watts | 6.5 dBi (2M) 9 dBi (70cm) | $139.95 |
| DMN-X300NA | 2M/70cm (Type N) | 10' | 200 Watts | 6.5 dBi (2M) 9 dBi (70cm) | $139.95 |
| DMN-X510HDM | 2M/70cm (SO-239) | 17.2' | 330 W (2M) 250 W (70cm) | 8.3 dBi (2M) 11.7 dBi (70cm) | $199.95 |
| DMN-X510HDNA | 2M/70cm (Type N) | 17.2' | 330 W (2M) 250 W (70cm) | 8.3 dBi (2M) 11.7 dBi (70cm) | $199.95 |
| DMN-X510NJ | 2M/70cm (Type N) | 17.2' | 200 Watts | 8.3 dBi (2M) 11.7 dBi (70cm) | $199.95 |
| DMN-X700HNA | 2M/70cm (Type N) | 24' | 200 Watts | 9.3 dBi (2M) 13 dBi (70cm) | $389.95 |

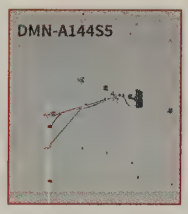
**Tri-Band Base/Repeater Antennas** (1.25" to 2.4" OD Mast Required)

| Part Number | Bands | Height | Power Rating | Gain | Price |
|---|---|---|---|---|---|
| DMN-V2000A | 6M/2M/70cm | 8.3' | 150 Watts | 2.1 dBi (6M) 6.2 dBi (2M) 8.4 dBi (70cm) | $159.95 |
| DMN-X6000A | 2M/70cm/23cm | 10.5' | 100 W (2M) 100 W (1.25M) 60 W (23cm) | 6.5 dBi (2M) 9 dBi (70cm) 10 dBi (23cm) | $189.95 |

**Yagi Beam Base Antennas**

| Part Number | Band | Elements | Boom Length | Power Rating | Gain | Price |
|---|---|---|---|---|---|---|
| DMN-A502HB | 6 Meter | 2 | 2.5' | 400 Watts | 6.3 dBi | $99.95 |
| DMN-A144S5 | 2 Meter | 5 | 3.1' | 100 Watts | 9.1 dBi | $59.95 |
| DMN-A430S10 | 70cm | 10 | 3.9' | 100 Watts | 13.1 dBi | $69.95 |
| DMN-A430S15 | 70cm | 15 | 7.4' | 100 Watts | 14.8 dBi | $89.95 |

### Ruggedized Base/Repeater Antennas



**2 Meter Yagi Beam Antennas**

These antennas are lightweight, yet deliver excellent performance. You can mount them vertically or horizontally, making them perfect choices for chasing SSB DX or in mobile/repeater operations. These 50 watt directional antennas are compact, easy to assemble and are great for Field Day, vacationing, and other portable uses. They come pre-adjusted, so you can get on the air quickly.

DMN-A144S5 — 2M Yagi, 3.1' Boom, 9.1 dBi Gain ..... $59.95

DMN-A144S10 — 2M Yagi, 7' Boom, 11.6 dBi Gain ..... $94.95

**6 Meter Base Station Yagi Beam Antenna**

Looking for a compact and lightweight antenna to get in on the 6 meter action? Here's your solution. It's easy to set up and delivers over 6 dB gain on 6M with only 2 elements and a 2.5 foot boom. The antenna handles 400 watts and wind speeds up to 80 mph.

DMN-A502HB — 6M Yagi Beam Antenna ..... $99.95

COMET

### Vertical VHF/UHF Antennas

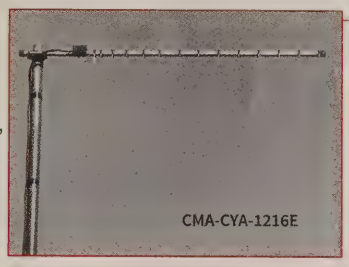
Reach out further and get maximum performance with Comet Antennas. These antennas all feature durable construction, so they are ideal for rough-weather environments. There are fiberglass and aluminum options for many applications and every antenna comes with Comet's superior quality, coverage and gain. The complete specs on every Comet Antenna can be found at DXEngineering.com.

CMA-GP-3

| Part Number | Coverage | Gain | Connector | Height | Price |
|---|---|---|---|---|---|
| CMA-GP-21 | 23cm | 14.9 dBi | Type N (F) | 8' | $174.95 |
| CMA-KP-20 | 33cm | 9.2 dBi | Type N (F) | 8' | $121.95 |
| CMA-CA-712EF | 70cm | 9 dBi | SO-239 | 10.5' | $119.95 |
| CMA-CA-F72GF | 70cm | 5.5 dBi | Type N (F) | 3.5' | $119.95 |
| CMA-CA-SUPER22 | 1.25M | 6.6 dBi | SO-239 | 8' | $159.95 |
| CMA-CA-F22GF | 2M | 5.5 dBi | SO-239 | 8.9' | $154.95 |
| CMA-CA-F22GFN | 2M | 5.5 dBi | Type N (F) | 8.9' | $154.95 |
| CMA-CFM-95SL | 88-108 MHz | 3.4 dBi | SO-239 | 7.7' | $115.95 |
| CMA-GP-1 | 2M/70cm | 3/6 dBi | SO-239 | 4' | $79.95 |
| CMA-GP-3 | 2M/70cm | 4.5/7.2 dBi | SO-239 | 5.9' | $104.95 |
| CMA-GP-6 | 2M/70cm | 6.5/9 dBi | SO-239 | 10.1' | $159.95 |
| CMA-GP-9 | 2M/70cm | 8.5/11.9 dBi | SO-239 | 18.5' | $209.95 |
| CMA-GP-9N | 2M/70cm | 8.5/11.9 dBi | Type N (F) | 18.5' | $209.95 |
| CMA-CX-333 | 2M/1.25M/70cm | 6.5/7.8/9 dBi | SO-239 | 10.4' | $179.95 |
| CMA-GP-95 | 2M/70cm/23cm | 6/8.6/12.8 dBi | Type N (F) | 8' | $179.95 |
| CMA-GP-98 | 2M/70cm/23cm | 6.5/9/13.5 dBi | Type N (F) | 9.7' | $199.95 |
| CMA-GP-15 | 6M/2M/70cm | 3/6.2/8.6 dBi | SO-239 | 7.9' | $174.95 |

COMET

### VHF/UHF Beam Antennas




Comet offers you two stellar Yagi antennas, one for the 6M band and one for the 23cm band. They're compact and lightweight, and have stainless steel hardware so they're rugged enough to last for years. Installation is easy, and the CYA-1216E comes pre-assembled.

CMA-CYA-1216E — 23cm Beam Antenna, 5.25' Boom, 16-Element, 16.6 dBi Gain ..... $154.95

CMA-CA-52HB4 — 6M Wideband Beam Antenna, 10.5' Boom, 4-Element, 10.5 dBi Gain ..... $139.95

MFJ

### Pulsar VHF/UHF Antennas

Well suited for base or repeater use, these antennas feature MFJ's exclusive PulsePEAK. That means you get a super-low angle of radiation pointed directly at the horizon, which results in maximum gain and excellent long-range performance. These antennas feature fiberglass radomes, stainless steel hardware and waterproof joints for years of dependable service.

MFJ-1516 — 2M Base/Repeater Antenna, 7.8 dB Gain, 15'... $99.95

MFJ-1522 — 2M/70cm Base Antenna, 4.5/7.2 dB Gain, 5.5'; $69.95

MFJ-1524 — 2M/70cm Base Antenna,6.5/9 dB Gain, 10' .... $119.95

MFJ-1526 — 2M/70cm Base Antenna, 8.3/11.7 dB Gain, SO-239, 17' ..... $139.95

MFJ-1532N — 2M/70cm/1.2 GHz Base Antenna, 4.5/8.3/11.7 dB Gain, 5.5' ..... $99.95

MFJ-1536 — 6M/2M/70cm Base Antenna, 2/6/8 dB Gain, 8.2' ..... $119.95

MFJ-1538 — 6M/2M/1.25M/70cm Base Antenna, 2.15/6.2/7.2/8.4 dB Gain, 8.2' ..... $119.95

COMET

### Wi-Fi Antennas

CMA-GP-24R

For exceptional performance at 2.4 GHz, Comet offers three options. Full details on coverage and dimensions are at DXEngineering.com.

Comet's GP-24R High Gain Wi-Fi Access Point Antenna delivers a whopping a 12 dBi gain in a narrow elevation pattern. It provides excellent coverage because it reaches out directly towards the horizon.

Designed to meet strict coverage requirements, the GP-24-3R and GP-24SR antennas are well suited for Wi-Fi, MESH, base or repeater installations. They have a heavy-duty fiberglass radome, with stainless steel clamps.

CMA-GP-24R — High Gain Wi-Fi Access Point Antenna ..... $179.95

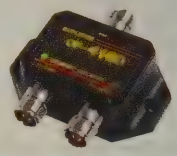
CMA-GP-24-3R — Omnidirectional 2.4 GHz Base Antenna, 70" Tall ..... $179.95

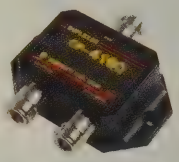
CMA-GP-24SR — Omnidirectional 2.4 GHz Base Antenna, 39" Tall ..... $129.95

## COMET

| Comet Duplexers | Port* | Frequency | PEP | Loss | Isolation | Mix Connector | Port Connector | Price |
|---|---|---|---|---|---|---|---|---|
| CMA-CF-142 | LPF<br>HPF | 1.3-150 MHz<br>200-480 MHz | 600 W<br>400 W | .2 dB<br>.3 dB | 40 dB | SO-239 | PL-259<br>PL-259 | $69.95 |
| CMA-CF-360B | LPF<br>HPF | 1.3-30 MHz<br>49-470 MHz | 600 W<br>600 W | .2 dB<br>.2 dB | 45 dB | PL-259 | SO-239<br>SO-239 | $69.95 |
| CMA-CF-413B | LPF<br>HPF | 1.3-500 MHz<br>840-1300 MHz | 500 W<br>200 W | .25 dB<br>.4 dB | 60 dB | Type N Female | PL-259<br>Type N Male | $62.95 |
| CMA-CF-416A | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .15 dB<br>.25 dB | 60 dB | SO-239 | PL-259<br>PL-259 | $49.95 |
| CMA-CF-416B | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .15 dB<br>.25 dB | 60 dB | S0-239 | PL-259<br>Type N Male | $49.95 |
| CMA-CF-416W | LPF<br>HPF | 1.2-250 MHz<br>400-1400 MHz | 400 W<br>200 W | .2 dB<br>.3 dB | 30 dB | Type N Female | PL-259<br>Type N Male | $69.95 |
| CMA-CF-4160I | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .1 dB<br>.2 dB | 60 dB | SO-239 | PL-259<br>Type N Male | $48.95 |
| CMA-CF-4160J | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .1 dB<br>.2 dB | 60 dB | SO-239 | SO-239<br>SO-239 | $53.95 |
| CMA-CF-4160K | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .1 dB<br>.2 dB | 60 dB | SO-239 | PL-259<br>PL-259 | $48.95 |
| CMA-CF-4160N | LPF<br>HPF | 1.3-170 MHz<br>350-540 MHz | 800 W<br>500 W | .1 dB<br>.2 dB | 60 dB | Type N Female | Type N Female<br>Type N Female | $58.95 |
| CMA-CF-530 | LPF<br>HPF | 1.3-90 MHz<br>125-470 MHz | 600 W<br>600 W | .2 dB<br>.2 dB | 45 dB | SO-239 | PL-259<br>PL-259 | $74.95 |
| CMA-CF-530C | LPF<br>HPF | 1.3-90 MHz<br>125-470 MHz | 600 W<br>600 W | .2 dB<br>.2 dB | 45 dB | PL-259 | SO-239<br>SO-239 | $74.95 |
| **Comet Triplexers** | **Port*** | **Frequency** | **PEP** | **Loss** | **Isolation** | **Mix Connector** | **Port Connector** | **Price** |
| CMA-CFX-324A | LPF<br>BPF<br>HPF | 1.3-150 MHz<br>200-320 MHz<br>390-500 MHz | 600 W<br>600 W<br>600 W | .2 dB<br>.25 dB<br>.3 dB | 40 dB | SO-239 | PL-259<br>PL-259<br>PL-259 | $88.95 |
| CMA-CFX-514J | LPF<br>BPF<br>HPF | 1.3-90 MHz<br>130-200 MHz<br>380-500 MHz | 800 W<br>800 W<br>500 W | .15 dB<br>.2 dB<br>.25 dB | 55 dB | SO-239 | SO-239<br>SO-239<br>SO-239 | $79.95 |
| CMA-CFX-514N | LPF<br>BPF<br>HPF | 1.3-90 MHz<br>130-200 MHz<br>380-500 MHz | 800 W<br>800 W<br>500 W | .2 dB<br>.25 dB<br>.3 dB | 55 dB | SO-239 | PL-259<br>PL-259<br>Type N Male | $79.95 |

CMA-CF-416A

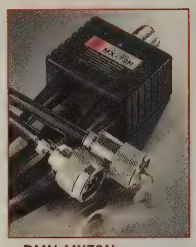

CMA-CF-4160J

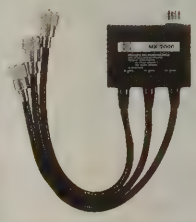

CMA-CF-4160N

CMA-CFX-324A

## DIAMOND ANTENNA

| Diamond Duplexers | Port* | Frequency | FM | PEP | Loss | Isolation | Mix Connector | Port Connector | Price |
|---|---|---|---|---|---|---|---|---|---|
| DMN-MX62M | LPF<br>HPF | 1.6-56 MHz<br>76-470 MHz | 200 W<br>200 W | 600 W<br>600 W | .2 dB<br>.3 dB | 50 dB<br>50 dB | SO-239 | PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable | $78.95 |
| DMN-MX610 | LPF<br>HPF | 1.3-30 MHz<br>49-470 MHz | 200 W<br>200 W | 600 W<br>600 W | .2 dB<br>.25 dB | 45 dB<br>45 dB | SO-239 | PL-259, No Cable | $69.95 |
| DMN-MX72D | LPF<br><br>HPF | 1.6-30 MHz<br>140-150 MHz<br>400-600 MHz | 400 W<br>150 W<br>100 W | 1,000 W<br>400 W<br>250 W | .1 dB<br>.1 dB<br>.2 dB | 60 dB<br>60 dB<br>60 dB | SO-239 | PL-259, No Cable<br><br>PL-259, No Cable | $46.95 |
| DMN-MX72H | LPF<br><br>HPF | 1.6-30 MHz<br>140-150 MHz<br>400-600 MHz | 400 W<br>150 W<br>100 W | 1,000 W<br>400 W<br>250 W | .1 dB<br>.1 dB<br>.2 dB | 60 dB<br>60 dB<br>60 dB | SO-239 | PL-259, 12" 5D Cable<br><br>PL-259, 12" 5D Cable | $49.95 |
| DMN-MX72N | LPF<br><br>HPF | 1.6-30 MHz<br>140-150 MHz<br>400-460 MHz | 400 W<br>150 W<br>100 W | 1,000 W<br>400 W<br>250 W | .1 dB<br>.1 dB<br>.1 dB | 60 dB<br>60 dB<br>60 dB | SO-239 | PL-259, 12" 5D Cable<br><br>Type N Male, 12" 5D Cable | $49.95 |
| DMN-MX72A | LPF<br><br>HPF | 1.6-30 MHz<br>140-150 MHz<br>400-460 MHz | 400 W<br>150 W<br>100 W | 1,000 W<br>400 W<br>250 W | .1 dB<br>.1 dB<br>.1 dB | 60 dB<br>60 dB<br>60 dB | Type N Female | PL-259, 12" 5D Cable<br><br>PL-259, 12" 5D Cable | $54.95 |
| **Diamond Triplexers** | **Port*** | **Frequency** | **FM** | **PEP** | **Loss** | **Isolation** | **Mix Connector** | **Port Connector** | **Price** |
| DMN-MX324 | LPF<br>BPF<br>HPF | 1.6-150 MHz<br>220-225 MHz<br>400-550 MHz | 400 W<br>300 W<br>250 W | 800 W<br>600 W<br>500 W | .3 dB<br>.4 dB<br>.4 dB | 40 dB<br>40 dB<br>40 dB | SO-239 | PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable | $89.95 |
| DMN-MX2000 | LPF<br>BPF<br>HPF | 1.6-60 MHz<br>110-170 MHz<br>300-950 MHz | 400 W<br>400 W<br>250 W | 800 W<br>800 W<br>500 W | .15 dB<br>.2 dB<br>.25 dB | 60 dB<br>60 dB<br>60 dB | SO-239 | PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable | $83.95 |
| DMN-MX2000N | LPF<br>BPF<br>HPF | 1.6-60 MHz<br>110-170 MHz<br>300-950 MHz | 400 W<br>400 W<br>250 W | 800 W<br>800 W<br>500 W | .15 dB<br>.2 dB<br>.25 dB | 60 dB<br>60 dB<br>60 dB | SO-239 | PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable<br>Type N Male, 12" 5D Cable | $79.95 |
| DMN-MX3000 | LPF<br>BPF<br>HPF | 1.6-160 MHz<br>350-500 MHz<br>850-1300 MHz | 400 W<br>200 W<br>100 W | 800 W<br>400 W<br>200 W | .2 dB<br>.3 dB<br>.4 dB | 55 dB<br>55 dB<br>55 dB | Type N Female | PL-259, 12" 5D Cable<br>PL-259, 12" 5D Cable<br>Type N Male , 12" 5D Cable | $79.95 |
| DMN-MX3000N | LPF<br>BPF<br>HPF | 1.6-160 MHz<br>350-500 MHz<br>850-1300 MHz | 400 W<br>200 W<br>100 W | 800 W<br>400 W<br>200 W | .2 dB<br>.3 dB<br>.4 dB | 55 dB<br>55 dB<br>55 dB | Type N Female | PL-259, 12" 5D Cable<br>Type N Male, 12" 5D Cable<br>Type N Male , 12" 5D Cable | $85.95 |


DMN-MX72N


DMN-MX2000

DMN-MX3000

*LPF: Low Pass Filter, BPF: Band Pass Filter, HPF: High Pass Filter

## How to Order

Order from DX Engineering:

- Online at www.DXEngineering.com
- By Phone: 1-800-777-0703
- By Fax: 1-330-572-3279
- International Phone Orders: 1-330-572-3200

Please provide your e-mail address for most efficient correspondence and to receive order confirmation notices.

## Hours of Operation

**Ordering (via phone)**

Eastern Time: Monday-Friday: 8:30 am to Midnight
Eastern Time: Saturday & Sunday: 8:30 am to 5 pm

**Ordering (online)**

Order at www.DXEngineering.com 24 hours a day, 7 days a week

**Phone or e-mail Technical Support**

Eastern Time: Monday-Friday: 8:30 am to 7 pm
Saturday: 9 am to 5 pm
DXEngineering@DXEngineering.com

**Showroom Staffing Hours**

Eastern Time: Monday-Saturday: 9 am to 5 pm

## Liability Statement

DX Engineering's liability for losses or damages, arising out of any cause whatsoever, is limited to full refund of the purchase price, or at our option, repair or replacement of the part(s). DX Engineering shall not be liable for any consequential or incidental damages. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. **Prices are subject to change without notice.** If you have any further questions, please send us an e-mail at DXEngineering@DXEngineering.com or contact us at 1-800-777-0703.

**Repairs**

We can, in most cases, perform repair service on out-of-warranty DX Engineering, Butternut, COMTEK, Rig Expert and Acom branded products. The cost of repairs is based on a labor rate of $60.00 per hour, and the total cost is estimated before repair work is started. Contact DX Engineering Customer Service to discuss the repairs needed and to receive shipping instructions.

## About Shipping

Freight, Shipping and Handling Policies

We ship most orders via fast ground service at no additional charge (to the contiguous 48 states). In-stock parts are shipped the same day if you order by 10:00 pm Eastern (0200 March-October, 0300 UTC November-February), Monday through Friday. Most orders arrive in 1-2 days via ground service in the contiguous 48 states.

Please Note: We verify all credit card orders for your protection. In rare cases, this process may cause a slight delay in shipping.

**Shipping and Handling**

Domestic and APO/FPO (United States, excluding HI, AK, PR, US Territories)

**Shipping and Handling on domestic orders is non-refundable and based on order subtotal:**

**Shipping and Handling charges are subject to change with out notice.**

| $0-$25 | $25.01-$98.99 | $99 and up |
|---|---|---|
| $9.95 | $12.95 | FREE |

No Shipping or Handling fee on most orders over $99.

**Domestic Non-Standard Shipping Options and Charges:**

**Next Day Air:** $39.00 for the first 15 lbs., and $39.00 for each additional 15 pound increment (i.e.; 16 to 30 pounds, 31 to 45 pounds, etc.)

**2-Day Air:** $29.00 for the first 15 lbs., and $29.00 for each additional 15 pound increment (i.e.; 16 to 30 pounds, 31 to 45 pounds, etc.)

**Next Day Air Saturday Delivery (where available):** The Next Day Air fee + $18.95 per order

**Non-Standard Shipping Charges (Domestic Orders) You May Incur: Hazardous Materials:** $27.50 per order

## About Shipping (continued)

**Oversize Items:** A special handling surcharge per item applies—ask your sales rep for details.

Truck Freight Fees are charged for products that are too large or too heavy for regular ground service.

| Weight | To Carrier's Distribution Center for Pickup* | To Your Home* |
|---|---|---|
| 0-100 Lbs. | $89.00 | $99.00 |
| 101-300 Lbs. | $99.00 | $109.00 |
| 301-499 Lbs. | $139.00 | $149.00 |
| 500-649 Lbs. | $169.00 | $179.00 |
| 650-900 Lbs. | $189.00 | $199.00 |
| 900+ Lbs. | Call for Quote | |

*These rates do not include lift gate fees.*

**Next Day Air:** $39.00 per 15 lbs.

**2-Day Air:** $29.00 per 15 lbs.

**Next Day Air Saturday Delivery:** The Next Day Air fee + $18.95 per order

**HI, AK, PR and US Territories**

Shipping and handling is non-refundable and based upon the method selected. Flat rate fees are available.

2-Day Air to Alaska, Hawaii and Puerto Rico is available at a discounted rate using this calculation:

**Metro:** $25.00 + $2.00 per pound

**Rural:** $25.00 + $2.75 per pound

**International and Canadian**

Shipping and handling is non-refundable and based on carrier selection and destination.

## Ordering/Shipping Details

Most in-stock parts ship the same day via ground and 2-Day Air if ordered by 10:00 pm Eastern, and via Next Day Air if ordered by 7:00 pm Eastern, Monday through Friday. Saturday Delivery guarantees a part ordered between 7:00 pm Eastern Thursday and 7:00 pm Eastern Friday will be delivered by 3:30 pm Saturday. Oversize or heavy items must be shipped via truck freight at a reduced flat rate (see table), charged at the time of shipment. APO/FPO orders can only ship via U.S. Postal Service and must be pre-paid by a check or credit card. Truck Freight, Hazardous Materials, and some oversize items cannot be shipped to APO/FPO addresses.

International and Canadian orders are classified as those shipping outside of the U.S. or U.S. territories. For more on shipping rates and times, or to obtain quotes for available shipping methods, call 1-330-572-3200.

Order online, or call 1-330-572-3200. Please provide your e-mail address for more efficient correspondence. All international and Canadian orders must be pre-paid and freight charges are based on billable weight (freight on orders with in-stock parts is billed at checkout; some orders with special-order parts may receive a freight estimate and actual cost is billed at time of shipment). In the event of a backorder, your order will be held until ALL items are in stock to save shipping charges. If you choose a Landed Cost Delivery provider (i-parcel for international orders and all major shipping carriers except USPS for Canadian orders), all duties, taxes and clearance fees are included at checkout. Otherwise, duties and taxes will be billed to you by the shipping company at the time of delivery. Ask your sales rep for details.

## Backorders

**Domestic Customers**

All in-stock items are shipped immediately. Most backordered items are shipped as they become available, which may result in multiple shipments for a single order. Customers' credit cards will be charged for in-stock items only when they are shipped. If you are paying by PayPal, all charges are made at the time of the initial order.

**International and APO/FPO Customers**

You will be charged for the entire order at the time of shipment. Your order will not ship until all items are available. In the event of a backorder, we will hold your entire order until ALL items are in stock. This saves you additional shipping charges. If you wish to have the available items shipped and are willing to pay the additional charges please contact us after you place your order.

## Product Warranties

**DX Engineering Products**

All products manufactured by DX Engineering are warranted to be free from defects in materials and workmanship for a period of one (1) year from date of shipment.
DX Engineering's sole obligation under this warranty shall be to issue credit, repair, or replace any item or part there of which is proved to be other than as warranted. No allowance shall be made for any labor charges of buyer for replacement of parts, adjustments or repairs, or any other work, unless DX Engineering authorizes such charges in advance. Repairs to DX Engineering-produced items are warranted for a period of 90 days against defects in materials and workmanship. Repair or replacement is at DX Engineering's discretion.

**Other Manufacturers**

Most manufacturers offer their own warranties. All warranties are included with your order. Some manufacturers require their products to be sent directly to them for warranty consideration—before returning any product from another manufacturer, contact us by e-mail or by phone at 1-800-777-0703.

If you want to return any electrical products for warranty consideration, please e-mail us before shipping the items back. We will determine if a warranty claim is valid and where the part needs to be sent. You can also call 1-800-777-0703 to speak to a Customer Service representative. Any item which, in our opinion, shows evidence of being used or installed contrary to manufacturer's instructions, and/or subjected to improper handling, packaging, or shipping by the customer will not be eligible for exchange, refund, or warranty consideration. We reserve the right to charge a restocking fee or refuse any item.

We cannot accept returns on custom-ordered parts. Software or publications cannot be returned for a refund once opened.

## Returns

DX Engineering does not have a trial or evaluation period for new equipment. However, if you're not satisfied within 10 days of receiving your purchase, contact our Customer Service/Technical Support department to discuss your options. A purchase may be returned for a full refund within 10 days of receipt providing that the original manufacturer's package is unopened, or is in as-new condition, and is undamaged. Items that you have opened and returned and may be subject to a restocking or repackaging fee.

DX Engineering **recommends that you insure your return shipment.** After inspection and verification of the returned items' condition, DX Engineering will send the purchaser a refund or issue credit to the original payment method used for the purchase—for the full amount of the merchandise less a nominal shipping charge. Shipping charges, insurance, and oversize fees are ***not*** refundable.
If it has been greater than 10 days since you received your order, the manufacturer's warranty will apply, and no returns will be accepted.

**Exceptions:** Any products that are personalized or special-ordered cannot be returned or exchanged.

Batteries (individual cells or battery packs), videos (any format), software, cut-to-length cable, custom-made cable assemblies, and copyrighted materials (books, publications) are ineligible for refund or exchange. Personal use items—microphones, headphones, earphones, and all clothing items—are non-returnable/non-refundable.

If a return is necessary, ship your return postage-paid and insured to:

DX Engineering
ATTN: Returns Department
3800 Mogadore Industrial Pkwy.
Mogadore, OH 44260 USA

Include a copy of your receipt and a note explaining the reason for your return. Items without documentation may be sent back to you.

DX Engineering reserves the right to make exceptions to the above return policy depending upon specific circumstances.

## Green Heron Engineering LLC

### Universal Digital Rotor Controllers

Green Heron has added digital capabilities to its much-loved line of controllers. This new series features advanced, adaptable controls that give you unparalleled operational ability. These state-of-the-art digital controllers have variable speed control, automated PC control capability, and precision heading accuracy good to 1/10 of a degree. The controllers are fully programmable—you may modify speed, braking, limit, ramp, and a handful of other parameters.

- High-visibility LCD display with adjustable backlight brightness
- Point-and-shoot or manual push button operation plus presets
- Variable-speed control
- Start and stop ramping to reduce tower and antenna stresses
- Fully supports side mounted antennas, soft limits prevent running into tower
- Allows over-travel up to 720 degrees total
- Master/slave for stacked arrays, turn together or separately
- Easy front panel setup and setup utility software

Upgrading to the Deluxe version adds a sleek, black finish and an ultra-bright green vacuum florescent display.

| | | |
|---|---|---|
| GHE-RT-21-CDE | Universal Rotor Controller, Programmed for Hy-Gain and CDE Rotators | $565.00 |
| GHE-RT-21D-CDE | Deluxe Universal Rotor Controller, Programmed for Hy-Gain and CDE Rotators | $705.00 |
| GHE-RT-21-M2 | Universal Rotor Controller, Programmed M2 Rotators | $565.00 |
| GHE-RT-21D-M2 | Deluxe Universal Rotor Controller, Programmed M2 Rotators | $705.00 |

ETX-ARS-USB-AE

### ARS-USB Antenna Rotator Control Interfaces

EA4TX.com

Imagine being able to control your rotator from your computer. Wire this interface to your existing controller, connect the console via USB to your PC and within a few minutes of setup, you'll be able to point your antennas automatically using your computer. The system is compatible with practically any tracking (satellite, logging, etc.) program and the display emulates the familiar Yaesu GS232A interface.

When used with an external 12-14 Vdc power supply, the EA4TX is also perfectly capable of operating without a computer. The unit can also be configured with its internal jumpers to make a great replacement rotator control. Software and a USB cable are included. Two versions are available: one for azimuth rotators, and the other for azimuth and elevation rotators.

Your radio may require a special interface cable for the controller to work properly, see them below.

| | | |
|---|---|---|
| ETX-ARS-USB-A | Controller Interface, Azimuth | $229.95 |
| ETX-ARS-USB-AE | Controller Interface, Azimuth and Elevation | $312.95 |
| ETX-ARS-AZELDIN8 | Cable, Azimuth and Elevation, Yaesu DIN-8 | $24.95 |
| ETX-ARSAZMINIDIN | Cable, Azimuth and Elevation, Yaesu Mini-DIN | $24.95 |

EA4TX.com

### Interlock

Running a multi-op contest station? This handy unit keeps you compliant with the contests' multi-op rules. It's simple, if a transmit signal is detected that violates one of the pre-defined parameters, the Interlock simply stops the transmission.

There are three three functions:

- Multi/single permits only one transmit signal on one band.
- Multi/2 permits two transmit signals on two different bands.
- InBand permits just one signal between a radio and its associated InBand.

The Interlock supports up to five radios. Depending on your radio model, you may need a special interface cable, sold separately.

| | | |
|---|---|---|
| ETX-INTERLOCK-5R | Interlock Unit | $229.95 |
| ETX-INTERLOCK-K3 | Interface Cable for Elecraft K3 | $29.95 |
| ETX-INTERLOCK-Y | Interface Cable for Yaesu | $29.95 |

## hy-gain

### T2X Tailtwister Series II Rotator

This is the complete tower-mounted unit of the T2X rotor, with clamps and mounting hardware included. Ideal for replacing an old Hy-Gain HAM-IV rotator or for use with a third-party controller such as the Green Heron RT-21, the T2X is designed for medium communications arrays of up to 20 square feet wind load area.

- Normal operation down to -30° F
- Steel alloy ring gear good to 100,000 PSI for maximum readability
- Indicator potentiometer with ferrite beads on wires to reduce RF susceptibility
- Weatherproof AMP connector plus 8-pin plug at control box
- Control Console #5137701

| | | |
|---|---|---|
| HGN-T-2X | Rotator with Controller | $719.95 |
| HGN-T2XR | Rotator Unit without Controller | $599.95 |

### HAM-IV Rotator

The HAM-IV, known as the "Ham-4," is the most popular rotator in the world. It is designed for medium-size communications arrays of up to 15 square feet wind load area.

- Normal operation down to -30° F
- Dual 98-ball bearing race for load bearing strength
- Electric locking steel wedge brake
- Ferrite beads on potentiometer wires reduce RF susceptibility
- Cinch plug connector plus 8-pin plug at control box—no screwdriver required
- N or S center of rotations scale on meter
- Low voltage control
- Handles masts up to 2 1/16" OD
- Power requirement: 110V, 60 Hz

| | | |
|---|---|---|
| HGN-HAM-IV | Rotator with Controller | $599.95 |
| HGN-HAM-IVR | Rotator Less Controller | $519.95 |

## hy-gain

### CD-45II Metered Rotator with Friction Brake and Controller Combo Kit

The CD-45II handles 8.5 square feet when mounted inside a tower, or 5 square feet with a mast adapter.

- Bell rotator design gives complete weather protection
- Low temperature grease good to -30° F
- Dual 24-ball bearing race for load bearing support
- North center scale, dual lighted directional meter indicator
- 8-pin plug/socket on control unit, snap-action control switches, low voltage control
- Handles masts up to 2 1/16" OD
- MSLD light duty lower mast support adapter included (not shown)
- Power requirement: 110V, 60 Hz

| | | |
|---|---|---|
| HGN-CD-45II | Rotator and Controller Combo Kit | $429.95 |

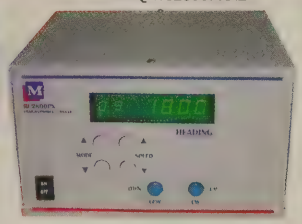
COM-CW3

DXE-CW8-HD

### Multi-Conductor Control Wire

| | | | |
|---|---|---|---|
| DXE-CW9 | Shielded Control Wire, 9-Conductor | per foot | $0.32 |
| DXE-CW9-1K | Shielded Control Wire, 9-Conductor, 1,000' spool | | $229.00 |
| DXE-CW9S | Shielded Control Wire, 9-Conductor Stranded | per foot | $0.38 |
| DXE-CW8 | Control Wire, 8-Conductor | per foot | $0.49 |
| DXE-CW8-HD | Control Wire, 8-Conductor, Heavy-Duty | per foot | $0.89 |
| DXE-CW8-HD-1000 | Control Wire, 8-Conductor, Heavy-Duty, 1,000' spool | | $850.00 |
| COM-CW3 | Wire, 3-Conductor | per foot | $0.25 |
| COM-CW4 | Wire, 4-Conductor | per foot | $0.45 |

### OR2800PXAZ
### Rotator Unit and Controller System


MSQ-RC2800PXAZ

M2 Antennas bundles its acclaimed OR2800PX Rotator Unit together with the RC2800PXAZ Rotator Controller in a complete system for your mast-mounted directional antennas. This package pairs the pinpoint accuracy of M2's controller with the rock-solid performance of the rotator.

These rotators feature a durable, high-torque motor in a package sized for most common towers and masts. They can handle 1,800 lbs. of vertical load and will easily turn large diameter masts with heavy directional antennas. The rotators use a precision worm drive to ensure accurate rotation. Their sturdy design handles a wind load up to 35 square feet. Though designed for the OR2800PXAZ controller, these rotators will work well with most third party rotator controllers.

M2 Antennas' RC2800PXAZ Rotator Controller is a full-function, variable speed azimuth-positioning unit with an easy-to-read multi-function digital display. It offers the ultimate control of your directional antenna systems. This controller is packed with new features including Auto-Calibrate, Auto Slow Down and M2's innovative One-Step Programming, which saves changes when you exit programming mode.

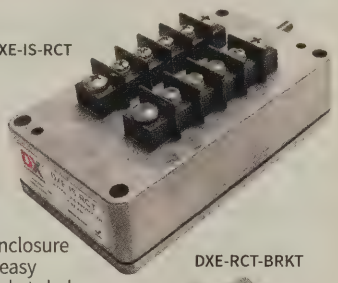
From the high-torque motor of the OR2800PX to the customizable microprocessor of the RC2800PXAZ, this system can be the perfect complement to your directional antenna setup. For complete package details, visit DXEngineering.com.

The rotator and controller are available separately, or bundled together in a comprehensive system.

| | | |
|---|---|---|
| MSQ-OR2800PXAZ | Rotator Unit and Controller System | **$2,729.95** |
| MSQ-OR2800PX | Rotator, Standard Drive Plate, Accepts 1.75"-3.125" OD Mast | **$1,868.95** |
| MSQ-RC2800PXAZ | Rotator Controller | **$818.95** |

DX ENGINEERING

### Rotator Control Line Protector


DXE-IS-RCT

Protect your control lines using this unit's eight individually shunt-protected terminals. When the voltage spikes above 82 Vdc in either polarity, the Rotator Control Line Protector automatically shunts the circuit to ground using an MOV for maximum surge protection.

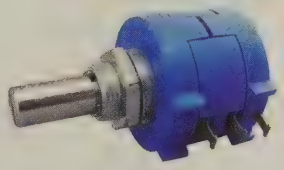
The protector is housed in a weatherproof metal enclosure with an integrated mounting stud, which makes it easy to attach to a tower leg or ground rod. Terminal gaskets help prevent any moisture from entering the housing.

DXE-RCT-BRKT

| | | |
|---|---|---|
| DXE-IS-RCT | Rotator Control Line Protector | **$169.95** |
| DXE-RCT-BRKT | Right Angle Flange Mounting Bracket | **$6.95** |

DX ENGINEERING

### Rotator Replacement Potentiometer

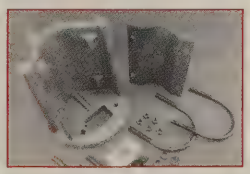


If you're using a model 1022 or 1032 TIC Ringrotor, then Mother Nature probably makes you replace your position potentiometer a lot. Make fewer trips up the tower with this fully weather-sealed replacement pot from DX Engineering.

| | | |
|---|---|---|
| DXE-TICGEN-POT | Rotator Replacement Potentiometer | **$19.95** |

hy-gain

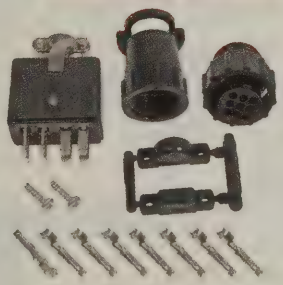
### Lower Mast Support Kit



Designed to fit your HAM-IV, HAM-V, HAM-VII and T2X, this kit is perfect if you need to mount your rotator to a mast instead of a flat surface.

| | | |
|---|---|---|
| HGN-MSHD | Lower Mast Support Kit | **$99.95** |

### Rotator Cable Connector Parts Pack



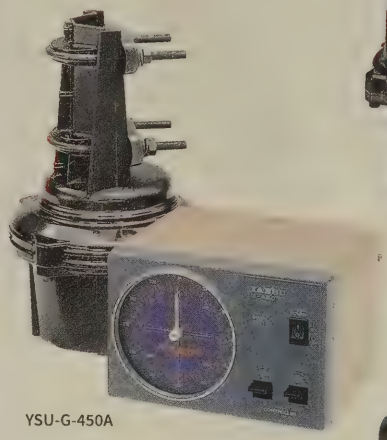
If you need to repair your T2X, HAM-V, HAM-IV, or HAM-VII Rotator's connectors, use this genuine Hy-Gain connector parts pack. It includes two receptacles, hardware and replacement pins.

| | | |
|---|---|---|
| HGN-870598 | Rotator Connector Parts Pack | **$34.95** |

### Rotator Accessories

| | | |
|---|---|---|
| DXE-UBK-HYG-1 | Replacement U-Bolt (single) Kit for Hy-Gain HAM-Series/CD-45 | **$11.50** |
| DXE-UBK-HYG-2 | Replacement U-Bolt (single) Kit for Hy-Gain T2X Rotor; | **$12.50** |

YAESU
The radio


YSU-G-450A

YSU-G-2800DXA

YSU-G-5500

### Heavy Duty Rotator Systems

Yaesu makes these rotator systems for large tower mounted antennas. They consist of a rotator and an azimuth/directional controller. The rotators use a variable-voltage DC motor, which eliminates the large starting capacitor found in other systems. The motor is housed in an aluminum enclosure and is permanently lubricated to ensure years of maintenance-free operation. Each system below handles a maximum mast OD of 2.5 inches and delivers 450 degrees of antenna rotation.

The sleek controllers match the aesthetics of Yaesu's radios perfectly. They allow you to select rotating speed and antenna heading. These rotator systems incorporate an auto "slow-stop" and a "slow-start" to better handle the momentum of a large antenna, which protects both the antenna and the rotator.

**Medium Duty Rotator Systems**

Perfect for smaller antennas, these systems incorporate the durable rotator design of their heavy-duty brethren. They handle 2.5 inch OD masts (smaller masts require an adapter, sold separately) and deliver 360 degrees of rotation. The G-450A is for rotation only, while the G-5500 system provides additional azimuth-elevation control.

| Part Number | Turning Power | Wind Load Rating (Tower) | Max. Vertical Load | Price |
|---|---|---|---|---|
| **Heavy Duty Rotator Systems** | | | | |
| YSU-G-2800DXA | 2,170 In.-Lbs. | 32.3 Sq. Ft. | 661 Lbs. | **$1,369.95** |
| YSU-G-1000DXA | 955 In.-Lbs. | 23.7 Sq. Ft. | 441 Lbs. | **$619.95** |
| YSU-G-800DXA | 955 In.-Lbs. | 21.5 Sq. Ft. | 441 Lbs. | **$489.95** |
| **Medium Duty Rotator System** | | | | |
| YSU-G-450A | 516 In.-Lbs. | 10.8 Sq. Ft. | 220 Lbs. | **$299.95** |
| **Medium Duty Azimuth-Elevation Rotator System** | | | | |
| YSU-G-5500 | 428 In.-Lbs. | 10.8 Sq. Ft. | 441 Lbs. | **$749.95** |

Channel Master

### Light Duty Antenna Rotator

This is the ideal rotor for your UHF, VHF, 6M, TV, FM or magnetic loop antenna. It will easily handle antennas up to 100 pounds and it fits up to a 2" OD mast. The control console is powered by standard household AC. It has a 360 degree digital heading readout and you can store your favorite positions in one of its 60+ non-volatile memories. A handy remote with direct numerical heading input is included. It comes with mounting clamps and hardware.

| | | |
|---|---|---|
| CNM-9521A | Light Duty Antenna Rotator | **$119.00** |

ROHN™ Products LLC

## Commercial Towers

DX Engineering is an Authorized Distributor of Rohn Commercial Tower products and accessories. We have the Rohn products you need to solve your tower structural needs—contact us for technical information and availability.

Rohn has been the world leader in tower design and manufacturing for more than six decades. Rohn maintains one of the largest manufacturing and staging facilities in the industry—it is committed to supplying the best.

Designed for areas where land cost or availability are not an issue, Rohn G-series guyed towers provide one of the most cost effective solutions in the industry. Guyed towers install quickly and are often the choice of broadcast communications tower stations and backbone system providers.

All G-series towers are built with high strength steel tubing that is hot-dip galvanized after fabrication. Rohn's exclusive Zig-Zag® solid rod bracing provides exceptional strength.

All Rohn towers, poles and masts must be installed and dismantled by trained personnel. See the Rohn manuals and drawings for detailed information.

### 45G Tower and Accessories

The 45G is a true multi-use structure that provides excellent strength for applications up to 300' tall.

- Completely hot-dip galvanized after fabrication
- Built on a stable 16.75" equilateral triangle design
- High strength tubular legs joined by Zig-Zag® cross members
- Continuous solid round steel bracing
- Each section is shipped with all nuts and bolts

| | | |
|---|---|---|
| ROH-45G | 45G Standard Section, 10' | **$264.95** |
| ROH-45AG2 | 45G Top Section, 9' | **$349.95** |
| ROH-SB45G | 45G Short Base, 5' | **$134.95** |
| ROH-BPL45G | 45G Top Plate for TB3 & TB4 Bearings | **$229.95** |
| ROH-BPC45G | 45G Concrete Base Plate | **$129.95** |
| ROH-AS455G | 45G & 55G Accessory Shelf | **$115.95** |
| ROH-GA45GD | 45G Guy Bracket Assembly with Hardware | **$181.95** |

### Turnbuckle

Never trust your guy line tension to an average hardware store turnbuckle. Only use genuine Rohn accessories. This turnbuckle has a 1,200 pound working load with an extended/retracted length of 12/18 inches.

ROH-3-8TBE-J Turnbuckle ..... **$42.95**

### 25G Tower and Accessories

The Model 25 originated at Rohn and the original still stands as the benchmark of lightweight guyed tower design quality. The 25G is available in the standard 10' section length and in a special order, UPS-shippable 7' length. The 25G uses double-bolted joints—proven to be the best method of joining tower sections for sturdiness and dependability. The 25G may be built to 190' tall.

- Completely hot-dip galvanized after fabrication
- Built on a stable 11.25" equilateral triangle design
- High strength tubular legs joined by Zig-Zag® cross/members, continuous solid round steel bracing
- Each section length is shipped with all required nuts and bolts

| | | |
|---|---|---|
| ROH-25G | 25G Standard Section, 10' | **$125.95** |
| ROH-25AG2 | 25G Top Section, Accepts 2" OD Mast | **$199.95** |
| ROH-SB25G5 | 25G Short Base, 5' | **$119.95** |
| ROH-SB25G | 25G Short Base, 3.33' | **$79.95** |
| ROH-25GSSB | 25G Self Supporting Base Plate | **$209.95** |
| ROH-BPH25G | 25G Hinged Base Plate | **$289.95** |
| ROH-SBH25G | 25G Short Hinged Base, 3.33' | **$249.95** |
| ROH-SDB25G | Drive-In Base Plate for Temporary Use | **$259.95** |
| ROH-AS25G | 25G Single Accessory Shelf | **$64.95** |
| ROH-GA25GD | 25G Guy Bracket Assembly with Hardware | **$165.95** |
| ROH-UHF25G | 25G Side Arm Mount | **$34.95** |
| ROH-BPC25G | Concrete Base Plate for 25G | **$75.95** |

### Work Platform

Don't get your feet strained in the cross-bracing; install this platform on your Rohn G-series Tower and perform your repairs safely. They snap into place and let you work without strain.

| | | |
|---|---|---|
| ROH-WP25G | Work Platform, 23 G-Series | **$145.95** |
| ROH-WP45G | Work Platform, 45 G-Series | **$165.95** |
| ROH-WP55G | Work Platform, 55 G-Series | **$269.95** |

### Erection Fixture

You probably call this a Gin Pole; it is a must-have tool to safely raise or repair your tower. The fixture is designed for 25G or 45G towers. It has the correct sheave and clamps, you supply the rope and muscle.

ROH-EF2545 Erection Fixture ..... **$919.95**

### Installation Accessories

| Part Number | Description | Price |
|---|---|---|
| ROH-TB4 | HD Thrust Bearing for 45AG, 55AG | **$209.95** |
| ROH-3-16EHS500 | HDG Guy Wire, 3/16" EHS x 500' Coil | **$155.95** |
| ROH-3-16EHS1000 | HDG Guy Wire, 3/16" EHS x 1,000' Coil | **$289.95** |
| ROH-1-4EHS500 | HDG Guy Wire, 1/4" EHS x 500' Coil | **$179.95** |
| ROH-1-4EHS1000 | Steel Guy Wire, 18-Gauge, 1,000' Spool | **$329.95** |
| ROH-BG2142 | Big Grip, 3/16" with End Sleeve | **$14.95** |
| ROH-BG2144 | Big Grip, 1/4" with End Sleeve | **$16.25** |
| ROH-GAC3455TOP | Anchor Rod, 3455, .75" dia. x 7' | **$149.95** |
| ROH-GAR30 | Anchor Rod, Eye, Rated to 7,330 Lbs. | **$45.95** |
| ROH-EP25343 | Equalizer Plate Assembly 25, 3-Hole | **$51.95** |
| ROH-EP25345 | Equalizer Plate Assembly 25, 5-Hole | **$65.95** |
| ROH-25AJBK | Replacement 25AG Joint Bolt Kit | **$6.95** |
| ROH-45JBK | Replacement 45G Joint Bolt Kit | **$13.95** |
| ROH-55JBK | Replacement 55G Joint Bolt Kit | **$14.95** |
| ROH-HBUTVRO | Universal HD House Bracket, 18-36" Standoff for 25G, 45G, 55G | **$239.95** |
| ROH-3-4X12PP | Base Pier Pin, 3/4" x 12"- 25G, 45G, 55G | **$22.95** |
| ROH-1-2X12BB | Tower Base J-Bolt, 1/2" Dia., 12" Long | **$18.95** |
| ROH-5-8X12BB | Tower Base J-Bolt, 5/8" Dia., 12" Long | **$13.95** |

ROHN™ Products LLC

## Telescoping Masts

Rohn telescoping masts are available in 28', 34', 36' and 43' nominal heights. They are pre-galvanized for corrosion protection and come assembled with hardware. All masts must be guyed or bracketed; installation should be done by experienced professionals. Telescoping masts are not recommended for commercial, CB or beam antenna installations. Truck Freight on "H" Series.

| | | |
|---|---|---|
| ROH-H30 | 28' Telescoping Mast | **$85.95** |
| ROH-H40 | 36' Telescoping Mast | **$125.95** |
| ROH-H50 | 43' Telescoping Mast | **$165.95** |
| ROH-9H50 | 34' Telescoping Mast, UPS-shippable | **$159.95** |

## Telescopic Mast Ground Mount

Built for your Rohn H and 9H (or any other 1.25"-1.5" telescopic mast), simply drive this ground mount into the soil, add your guy lines and get on the air.

ROH-GTMBL Ground Mount ..... **$55.95**

## Professional Guy Line Tension Gauges

Avoid serious safety issues by ensuring that your guy lines are properly tensioned. These gauges offer professional-level accuracy and are easy to use. They'll gauge the tension your tower guy lines, large tent supports and sailboat rigging. The gauges accept lines from 3/32" to 3/8" OD.

| | | |
|---|---|---|
| LOO-PT-1 | 3/32"-5/32" Tension Gauge, 70-800 Lb. Range | **$109.95** |
| LOO-PT-2 | 3/16"-1/4" Tension Gauge, 180-2,000 Lb. Range | **$112.95** |
| LOO-PT-3 | 1/4"-3/8" Tension Gauge, 550-4,500 Lb. Range | **$229.95** |

## Insulator and Bent Pin Shackle Kits

DXE-INS-P2

These kits are the ideal way to secure your guy lines to your tower, while protecting your antenna from RF noise generated by those guy lines. They feature porcelain insulators and galvanized steel shackles. Each shackle accepts Big Grip dead ends and is compatible with both metallic and non-metallic guy lines. The kits include three insulators and three shackles.

| | | |
|---|---|---|
| DXE-INS-P1 | Kit , 504-Style Insulators, 12,000 Lb. Break Strength | **$164.90** |
| DXE-INS-P2 | Kit , 502-Style Insulators, 10,000 Lb. Break Strength | **$154.90** |

DX ENGINEERING® PHILLYSTRAN

## Phillystran Tail Kits

Using a steel tail to terminate your non-metallic guy line is a smart way to protect it from damage—whether its from vandals, brush fires, lawn mowers, fertilizers or ambitious rodents. As recommended by Phillystran, DX Engineering assembled kits to make it easy to install or upgrade your guying system. The kits include 12 feet of galvanized steel guy line, a porcelain strain insulator, Big Grips (for the dead end only), a heavy duty thimble and cable ties. You supply the guy line and appropriate Big Grip. The kits below are designed for three guy lines. Find individual sets at DXEngineering.com.

| Part Number | Guy Line Diameter | Insulator Strength Lbs. | Breaking Strength Lbs. | Price |
|---|---|---|---|---|
| DXE-PT-4000-3P | 0.187" | 10,000 | 3,990 | **$179.85** |
| DXE-PT-6700-3P | 0.250" | 10,000 | 6,650 | **$209.85** |
| DXE-PT-11200-3P | 0.313" | 12,000 | 11,200 | **$239.85** |

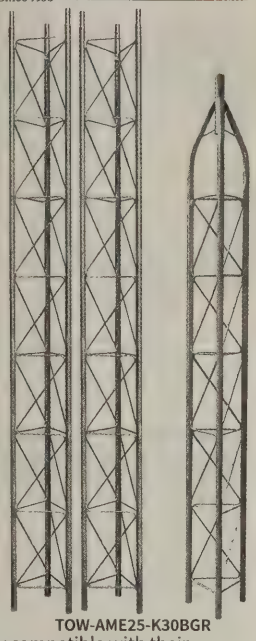
## Amerite 25 Series Bracket Tower Packages

American Tower Company
Designers & Manufacturers of Communication Towers
Since 1953

American Tower has done your component-matching homework for you by building these handy 30 foot tower packages. You'll still have to add the concrete and any add-on tower accessories, but these kits are an excellent starting point. Learn more about each one's exact contents at DXEngineering.com.

TOW-AME25-K-30B3 Tower Package, with AME25-B3 Base ....**$655.95**

TOW-AME25-K30BGR Tower Package, with AME25-BGR Base; **$629.95**



TOW-AME25-K30BGR

## Amerite Tower Sections and Components

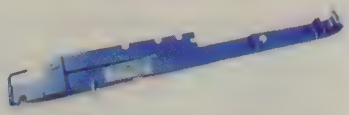
American Tower's economical and versatile Amerite 25 Tower Series is a popular choice for many Amateur Radio applications. Depending on the antenna wind load, the 25 Series can be used in self-supporting, guyed and bracketed installations. Each tower section is hot-dip galvanized for corrosion resistance and double-bolted to create an extra-secure junction. The sections are made with steel tubing carrying a 50,000 PSI yield strength to meet ASTM 123 standards. The tower sections have 11.25" leg spacing, with 1.25" OD tubing legs.

Similar to the 25 Series, the Amerite 45 Series has wider, 16.75" leg spacing, while the 55 series has 17" leg spacing. They are both well suited to Ham use.

American Tower Company Amerite tower products are fully compatible with their respective ROHN counterparts, which means if the need arises, you have a broader pool of installation and service parts in the future.

| Part Number | Description | Price |
|---|---|---|
| **Amerite 25 Series Sections and Components** | | |
| TOW-AME25 | Tower Section, 10' | $119.95 |
| TOW-AME25-6 | Tower Section, 6' | $139.95 |
| TOW-AME25-T | Top Section, 9' | $135.95 |
| TOW-AME25-6T | Top Section, 6' | $147.95 |
| TOW-AME25-TRB | Top Section, Removable Mast Bushing, 9' | $145.95 |
| TOW-AME25-6TRB | Top Section, Removable Mast Bushing, 6' | $157.95 |
| TOW-AME25-ABC | Anchor Base Cage | $159.95 |
| TOW-AME25-AG2E | Top Section, Tube on Top, 9.75' | $165.95 |
| TOW-AME25-EMT | Top Section, Extended Mast, 10' | $159.95 |
| TOW-AME25-AS | Accessory Shelf | $64.95 |
| TOW-AME25-B3 | Base Section, 3.3' | $72.95 |
| TOW-AME25-GB | Guy Bracket Assembly | $115.95 |
| TOW-AME25-B5 | Base Section, 5' | $115.95 |
| TOW-AME25-BGR | Base Plate, Ground/Roof Mount | $69.95 |
| TOW-AME25-BT | Tilt Base, 3.3' | $109.95 |
| TOW-AME25-BH | Base Plate, Hinged, Ground/Roof Mount | $199.95 |
| TOW-AME25BK | Joint Bolt Kit, Replacement Hardware | $7.25 |
| TOW-AME25-DIB | Drive-in Tower Base Plate | $129.95 |
| TOW-AME25-TBA | Hinged Base Adapter | $309.95 |
| TOW-AME25-WM | Wall Mount Support for Hinged Plate Mount | $309.95 |
| TOW-AME-DA-18 | Upper Tower Bracket for AME25-WM | $69.95 |
| **Amerite 45 Series Sections and Components** | | |
| TOW-AME45 | Tower Section, 10' | $259.95 |
| TOW-AME45-B5 | Tower Section, 5' | $132.95 |
| TOW-AME45-T | Top Section, 9' | $299.95 |
| TOW-AME45-55-AS | Accessory Shelf | $115.95 |
| TOW-AME45-ABC | Anchor Base Cage | $199.95 |
| TOW-AME45-BGR | Base Plate, Ground/Roof Mount | $126.95 |
| TOW-AME45-BH | Base Plate, Hinged, Ground/Roof Mount | $525.95 |
| TOW-AME45BK | Joint Bolt Kit, Replacement Hardware | $13.95 |
| **Amerite 55 Series Sections and Components** | | |
| TOW-AME55 | Tower Section, 10' | $345.95 |
| TOW-AME55-B5 | Base Section, 5' | $185.95 |
| TOW-AME55-BGR | Base Plate, Ground/Roof Mount | $149.95 |
| TOW-AME55BK | Joint Bolt Kit, Replacement Hardware | $14.95 |

## Tower Assistant



You spent a lot of money on your tower—don't risk damaging it with errant hammer blows. American Tower makes this tool precisely for its Amerite Tower designs. It has multiple uses, from splitting apart stubborn sections to aligning sections together. The unique leverage mechanism will save you from back and arm strain, too.

TOW-AME-TAT Tower Assistant ..... **$129.95**

DX ENGINEERING

## Advanced Design Thrust Bearing

This Advanced Design Thrust Bearing from DX Engineering improves on the standard design in two key areas. First, the ball bearings ride on an all-metal surface, not a seam like other thrust bearings, to promote a longer service life. The precision bearings are made to much tighter tolerances, eliminating the slop found in other thrust bearings.

Secondly, our Mast Thrust Bearing can handle much greater static loads than other models. Not only does that reduce stress on the rotator, it makes rotator service possible without removing your antenna—think about how much hassle, time and money that could save! It fits a 2" OD mast and most common tower sizes from Rohn and American Tower.

DXE-TB-300 Advanced Design Thrust Bearing ..... **$169.95**

## Phillystran® Non-Metallic Tower Guy Line

PHILLYSTRAN

These insulator-free, non-metallic guys have been protecting the towers of knowledgeable Amateur Radio operators since 1973. Following their introduction, Phillystran Guy Lines have been installed on more than one thousand commercial broadcast towers worldwide. Electrically transparent Phillystran tower guys are protected by an extruded jacket, providing excellent resistance to weather and abrasion.

- Complete isolation of tower-guy system from the antenna field
- Improved signal coverage, eliminating distortion caused by re-radiated signals
- Quick, easy, maintenance-free tower installations
- A neat tower appearance, free of corroded steel guys and troublesome ceramic insulators (solving arcing white noise issues, too)
- No need to calculate guy lengths to avoid guy line resonance
- No insulators required
- None of the stretching or aging problems associated with conventional synthetic ropes
- No more zapping, snapping and crackling across porcelain insulators

PHI-HPTG-1200I 4mm Dia., 1,200 Lbs. Break Strength ..... per foot **$0.59**

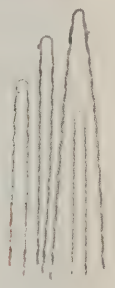
PHI-HPTG-2100I 6mm Dia., 2,100 Lbs. Break Strength ..... per foot **$0.85**

PHI-HPTG-4000I 8mm Dia., 4,000 Lbs. Break Strength ..... per foot **$1.25**

PHI-HPTG-6700I 9mm Dia., 6,700 Lbs. Break Strength ..... per foot **$1.75**

PHI-HPTG-11200I 11mm Dia., 11,200 Lbs. Break Strength ..... per foot **$2.80**

## Phillystran® Big Grip Dead-Ends



Phillystran has answered the call for field-installable, nonmetallic tower-guy systems with HPTG-I and PLP Big Grip Dead-Ends. Phillystran Big Grip Dead-Ends have a variety of unique features:

- Grip designed to match rope twist direction (RHL)
- Special-sized wires for ease of application
- Galvanized steel and "C" coat construction
- Color-coded for ease of identification
- Longer length to match Phillystran's high performance forged steel galvanized wire rope clips are recommended for the small PHI-HPTG-1200I Guy Line

PHILLYSTRAN

PHI-PLP-2738 Blue Tag, Use with HPTG-2100I Guy Line ..... **$11.95**

PHI-PLP-2739 Yellow Tag, Use with HPTG-4000I Guy Line ..... **$15.95**

PHI-PLP-2755 Red Tag, Use with HPTG-6700I Guy Line ..... **$22.95**

PHI-PLP-2558 Black Tag, Use with HPTG-11200I Guy Line ..... **$27.95**

DX ENGINEERING

## Vinyl End Caps for Phillystran® Guy Line

Heavy-duty vinyl to cover and protect cut cable ends.

DXE-H166 Use with HPTG-1200I Guy Line, Pack of 20 ..... **$8.95**

DXE-H165 Use with HPTG-2100I Guy Line, Pack of 20 ..... **$8.95**

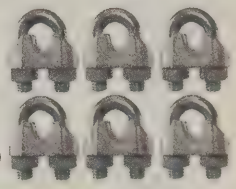
DXE-H164 Use with HPTG-4000I Guy Line, Pack of 20 ..... **$8.95**

DXE-H142 Use with HPTG-6700I Guy Line, Pack of 20 ..... **$8.95**

DXE-H204 Use with HPTG-11200I Guy Line, Pack of 20 .... **$8.95**

LOOS & CO. CABLEWARE® DIVISION

## Guy Line Clamp Kit



Use this kit to properly terminate and secure your guy lines. The kit includes six galvanized steel clamps that fit cable ranging from 3/16" to 7/32" OD. For larger size guy line, DX Engineering recommends Big Grips from Phillystran.

LOO-CP2-6P-6 Guy Line Clamp Kit, Set of 6 ..... **$4.29**

## Heavy Duty Galvanized Rope Thimbles

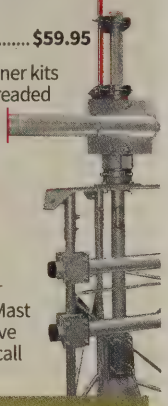
| Part Number | For Cable Diameter | Overall Length | Overall Width | Price Set of 2 |
|---|---|---|---|---|
| LOO-EY414-8-2 | 1/4" | 2 1/4" | 1 1/2" | $2.05 |
| LOO-EY414-10-2 | 5/16" | 2 1/4" | 1 13/16" | $2.79 |
| LOO-EY414-12-2 | 3/8" | 3" | 2 1/8" | $3.29 |
| LOO-EY414-14-2 | 7/16" | 3 1/2" | 2 3/8" | $5.35 |
| LOO-EY414-16-2 | 1/2" | 3 5/8" | 2 3/4" | $7.39 |

## Lightning Rod Mounting Solutions from DX Engineering

DX ENGINEERING

These specially designed clamps are the best way to affix a lightning rod to the top of your tower. The heavy duty, stainless steel assemblies are rugged enough to handle severe weather and will resist corrosion for years of outdoor use. DX Engineering Lightning Rod Mast Mounts will work with lightning rods from 5/8"-3/4" in diameter, and will clamp to any 2"-3" OD mast. The mounting hardware is sold separately; see the table below.

DXE-LRMM Lightning Rod Mast Mounts ..... $59.95



**Lightning Rod Mast Mount Fasteners** - Here are the complementing fastener kits for the DX Engineering Lightning Rod Mast Mounts. Each set contains 8 threaded rods with 32 matching hex nuts, plus 16 flat and 16 lock washers. Choose your kit based on the OD of the mast you're mounting to.

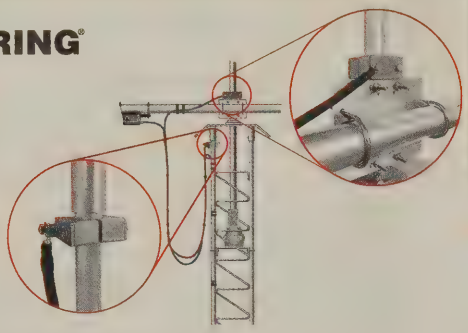
| Part Number | Bolt Length | For Mast OD | Price |
|---|---|---|---|
| DXE-LRMM-FAST7 | 7" | 2" | $29.45 |
| DXE-LRMM-FAST7-5 | 7.5" | 2.5" | $29.95 |
| DXE-LRMM-FAST8 | 8" | 3" | $30.95 |

**Lightning Rod Kits** - If you want a complete lightning rod solution for your tower, we've built these combos that bundle together our Lightning Rod Mast Mounts, the appropriate Fastener kit, plus an Erico Lighting Rod. If you have questions on how to properly safeguard your tower from lighting strikes, call us—we'll be happy to help.

| Part Number | For Mast OD | Rod Length | Rod OD | Rod Tip | Included Fasteners | Price |
|---|---|---|---|---|---|---|
| DXE-LRMM-2-434 | 2" | 4' | 0.750" | Pointed | FAST7 | $319.35 |
| DXE-LRMM-2-458B | 2" | 4' | 0.625" | Pointed | FAST7 | $185.35 |
| DXE-LRMM-2-458BS | 2" | 4' | 0.625" | Safety | FAST7 | $179.35 |
| DXE-LRMM-2-834 | 2" | 8' | 0.750" | Pointed | FAST7 | $319.35 |
| DXE-LRMM-3-434 | 3" | 8' | 0.750" | Pointed | FAST8 | $320.85 |
| DXE-LRMM-3-458B | 3" | 4' | 0.625" | Pointed | FAST8 | $186.85 |
| DXE-LRMM-3-458BS | 3" | 4' | 0.625" | Safety | FAST8 | $180.85 |
| DXE-LRMM-3-834 | 3" | 8' | 0.750" | Pointed | FAST8 | $297.85 |

DX ENGINEERING

## Bearing Bypass Ground Kits



When lightning hits your tower, the first place that massive energy jumps through is the mast thrust bearing. That's bad news for the thrust bearing but worse news for you. Replacing it means removing your antennas—a process that is both time-consuming and really, really expensive.

These kits use heavy-gauge, flexible cable to safely guide lightning energy away from the thrust bearing and down your tower to ground. They're easy to install and cheap insurance against a costly repair.

DXE-BBGK-2-25-P Kit for 2" Mast and Rohn 25G/45G Tower Leg ..... $139.15
DXE-BBGK-2-55-P Kit for 2" Mast and Rohn 55G Tower Leg ..... $140.15
DXE-BBGK-3-25-P Kit for 3" Mast and Rohn 25G/45G Tower Leg ..... $169.15
DXE-BBGK-3-55-P Kit for 3" Mast and Rohn 55G Tower Leg ..... $170.15

## Heavy-Duty 4130 Chromoly Steel Masts

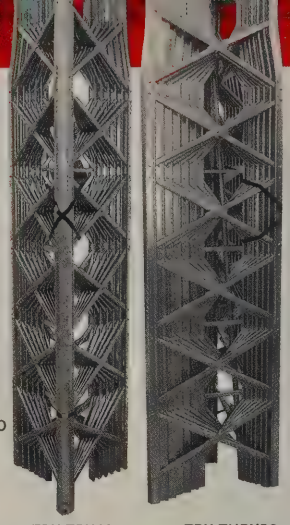
Serious antenna builders know you can't compromise on anything. With that in mind, DX Engineering offers you super-strong masts perfectly suited to Amateur Radio applications. Available in 2 or 3 inch outside diameters, these galvanized steel masts have a 1/4" wall thickness for extra rigidity. The masts have a certified yield stress rating over 100,000 psi, a minimum Rockwell hardness of 96, and a galvanized coating that meets ASTM A123/M specifications.

They are sold in 22' sections; DX Engineering will help arrange shipping and ensure that the ordering process will go smoothly. Call 800-777-0703 to get started and use the online Mast Load Estimator tool at DXEngineering.com to test your proposed installations.

DXE-ST200CM-22 Heavy-Duty 4130 Chromoly Steel Mast, 2" OD ..... $399.95
DXE-ST300CM-22 Heavy-Duty 4130 Chromoly Steel Mast, 3" OD ..... $589.95

# TBX Tower

## Packaged Tower Kits and Accessories



TBX-TBX48 TBX-THBX56

These TBX Packaged Tower Kits eliminate guesswork and make it possible for anyone to erect a self-supporting tower. The kits include offset lattice style tower sections that create a strong, step-up design. The sections are made from contoured steel that is galvanized to resist the elements. The kits will include a rotor plate, top plate, hardware pack and a set of top-section steps. Base stubs must be ordered separately.

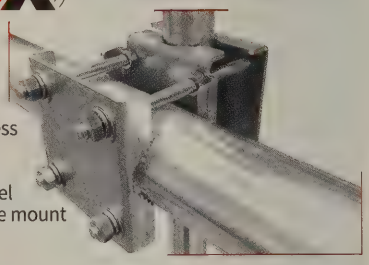
TBX also offers Base Hinge Kits that allow you to assemble the tower on the ground and raise it into place. The heavy-duty hinges are strong enough to handle a tower up to 64 feet. TBX Step Kits makes climbing your tower much safer and more comfortable. Both the Hinge Kits and Step Kits include all the hardware you'll need for installation.

More TBX Packaged Tower Kits and accessories are available at DXEngineering.com.

| Part Number | Height | Max. Wind Load | Notes | Price |
|---|---|---|---|---|
| TBX-TBX40 | 40' | 6 Sq. Ft. | Includes 8'/1.25" OD Mast | $999.95 |
| TBX-TBX48 | 48' | 6 Sq. Ft. | Includes 8'/1.25" OD Mast | $1,299.95 |
| TBX-TBX56 | 56' | 6 Sq. Ft. | Includes 8'/1.25" OD Mast | $1,672.95 |
| TBX-THBX24 | 24' | 10 Sq. Ft. | Heavy Duty | $636.95 |
| TBX-THBX32 | 32' | 10 Sq. Ft. | Heavy Duty | $917.95 |
| TBX-THBX40 | 40' | 10 Sq. Ft. | Heavy Duty | $1,202.95 |
| TBX-THBX48 | 48' | 10 Sq. Ft. | Heavy Duty | $1,508.95 |
| TBX-THBX56 | 56' | 10 Sq. Ft. | Heavy Duty | $1,836.95 |
| TBX-THDBX24 | 24' | 18 Sq. Ft. | Extra Heavy Duty | $749.95 |
| TBX-THDBX32 | 32' | 18 Sq. Ft. | Extra Heavy Duty | $1,042.95 |
| TBX-THDBX40 | 40' | 18 Sq. Ft. | Extra Heavy Duty | $1,348.95 |
| TBX-THDBX48 | 48' | 18 Sq. Ft. | Extra Heavy Duty | $1,675.95 |
| **Base Hinge Kits** | | | | |
| TBX-HB36 | Base Hinge Kit for 1.5" OD Stud Pipe | | | $354.95 |
| TBX-HB78 | Base Hinge Kit for 2.0" OD Stud Pipe | | | $434.95 |
| **Step Kits** | | | | |
| TBX-SK1 | Step Kit for TBX1A Series Tower | | | $9.95 |
| TBX-SK2 | Step Kit for TBX2/2A Series Tower | | | $11.95 |
| TBX-SK3 | Step Kit for TBX3/3A Series Tower | | | $12.95 |

DX ENGINEERING

## Genius Clamps

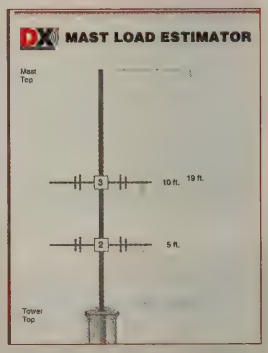


If you've ever struggled to mount a horizontal cross bar to a piece of vertical tubing, then you'd probably call these "Genius!" Clamps, too. They're the ideal way to create a tower standoff to side-mount an extra antenna. These stainless steel clamps are sized for 1" to 2" OD pipe, in both horizontal and vertical orientation. Two versions are available, one for a parallel standoff, and another to create a right angle mount that's perfect for installing a vertical mast. Genius Clamp hardware is sold separately.

DXE-SSGC-2P Genius Clamps, Right Angle, Pair ..... $59.95
DXE-SSGC-2VP Genius Clamps, Parallel, Pair ..... $64.95

**Genius Clamps Hardware Sets**-Since we don't know your specific application, we don't include hardware. Hex bolt fasteners for Genius Clamps are available separately; select the sizes you need in the table nearby. The sets include 8 full-thread bolts or rods, 16 nuts, 8 flat washers and 8 split washers. The thread is 5/16"-18.

| Part Number | Bolt Length | Price |
|---|---|---|
| DXE-SSGCBOLT-4 | 4" | $13.45 |
| DXE-SSGCBOLT-4-5 | 4.5" | $13.45 |
| DXE-SSGCBOLT-5 | 5" | $14.95 |
| DXE-SSGCBOLT-5-5 | 5.5" | $15.95 |
| DXE-SSGCBOLT-6 | 6" | $16.45 |
| DXE-SSGCBOLT-6-5 | 6.5" | $18.95 |




## FREE DX Engineering Mast Load Estimator

If you're designing a tower installation, visit DXEngineering.com and use the free online Mast Load Estimator. First decide if you're using a 2" or 3" OD mast and then enter its overall height. Next, add up to five antennas, with their height from the tower top and wind load area. The Mast Load Estimator will calculate if your configuration will work. It's totally free and you'll only find it at DXEngineering.com. Check out the video online.

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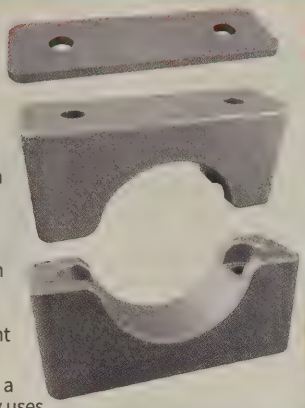


## Super Duty Saddle Clamps

Super Duty Saddle Clamps are perfect for building large Yagi or LPDA antennas (where maximum strength is critical). These clamps attach to the tubing and establish a secure mounting point for a flat plate or surface.

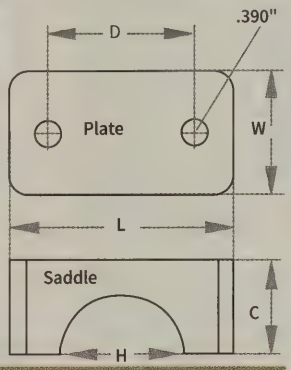
Super Duty Saddle Clamps provide maximum grip on booms, masts and element tubing. Unlike stamped or machined-type clamps, Super Duty clamps are cast from rugged aluminum with a special textured surface to grip the tubing. These new clamps mean you can choose an exactsize to create an incredibly secure fit that is resistant to torque, wind and weather.

These clamps consist of two cast aluminum saddles and a stainless steel reinforcement plate. Since there are many uses for these clamps, we don't include hardware. Our armor-coated bolt sets are available separately. Typical Super Duty Clamp mounting applications on a 1/4" plate require a minimum length bolt set.

Super Duty Saddle Clamps fit 2.00", 2.50" and 3.00" OD tubing. A thread lubricant and anti-seize compound, like Jet-Lube SS-30, is highly recommended during installation.

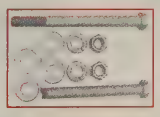
## Heavy Duty Saddle Clamps

If a design calls for typical saddle clamps but you want something with more strength, DX Engineering now offers a range of Heavy Duty Saddle Clamps. They're similar to the Super Duty Saddle Clamps, only they're available for smaller diameter tubing and have the same footprint of a standard saddle clamp. These new Heavy Duty Saddle Clamps fit 0.75", 1.00", 1.25", 1.50", 1.75" and 2.00" OD tubing. Find each clamp's matching Bolt and Nut set in the table below.




| Part Number | Nominal OD | L | W | D | H | C | Price |
|---|---|---|---|---|---|---|---|
| **Super Duty Saddle Clamps** | | | | | | | |
| DXE-SDS-300P | 3.000 | 4.650 | 2.500 | 3.400 | 3.000 | 2.060 | **$59.95** |
| DXE-SDS-250P | 2.500 | 4.150 | 2.250 | 2.900 | 2.500 | 1.820 | **$49.95** |
| DXE-SDS-200P | 2.000 | 3.640 | 2.000 | 2.400 | 2.000 | 1.570 | **$39.95** |
| **Heavy Duty Saddle Clamps** | | | | | | | |
| DXE-HDS-200AP | 2.000 | 3.648 | 1.000 | 2.375 | 2.000 | 1.565 | **$14.45** |
| DXE-HDS-175AP | 1.750 | 3.148 | 1.000 | 2.000 | 1.750 | 1.315 | **$13.95** |
| DXE-HDS-150AP | 1.500 | 2.898 | 1.000 | 1.750 | 1.500 | 1.190 | **$13.45** |
| DXE-HDS-125AP | 1.250 | 2.398 | 1.000 | 1.500 | 1.250 | 1.065 | **$12.95** |
| DXE-HDS-100AP | 1.000 | 2.148 | 1.000 | 1.250 | 1.000 | 0.815 | **$12.45** |
| DXE-HDS-075AP | 0.750 | 1.898 | 0.750 | 1.000 | 0.750 | 0.690 | **$11.95** |

Saddle Clamp Dimensions in Inches



## Bolt and Nuts Sets

These armor-coated bolt sets are specifically tailored to the DX Engineering Super Duty and Heavy Duty Saddle Clamps. The sets include (2) Grade 8 hex head bolts, (2) split washers, (4) flat washers and (2) nuts.

| Part Number | Thread Pitch | Length | Thread Length | Price |
|---|---|---|---|---|
| **Armor Coated Bolt Sets** | | | | |
| DXE-SDSBOLT-6-5 | 3/8"-16 | 6.500 | 1.000 to 1.313 | **$11.95** |
| DXE-SDSBOLT-6 | 3/8"-16 | 6.000 | 1.000 to 1.313 | **$11.45** |
| DXE-SDSBOLT-5-5 | 3/8"-16 | 5.500 | 1.000 to 1.313 | **$10.95** |
| DXE-SDSBOLT-5 | 3/8"-16 | 5.000 | 1.000 to 1.313 | **$9.95** |
| DXE-SDSBOLT-4-5 | 3/8"-16 | 4.500 | 1.000 to 1.313 | **$9.45** |
| DXE-HDSBOLT-4 | 1/4"-20 | 4.000 | 0.750 to 1.000 | **$6.45** |
| DXE-HDSBOLT-3-5 | 1/4"-20 | 3.500 | 0.750 to 1.000 | **$5.95** |
| DXE-HDSBOLT-2-75 | 1/4"-20 | 2.750 | 0.750 to 1.000 | **$5.45** |
| DXE-HDSBOLT-2-5 | 1/4"-20 | 2.500 | 0.750 to 1.000 | **$4.95** |
| **Stainless Bolt Sets** | | | | |
| DXE-HDSBOLT4-5S | 3/8"-16 | 4.500 | 0.750 to 1.000 | **$5.75** |
| DXE-HDSBOLT3-75S | 1/4"-20 | 3.750 | 0.750 to 1.000 | **$5.40** |
| DXE-HDSBOLT3-5S | 1/4"-20 | 3.500 | 0.750 to 1.000 | **$5.05** |
| DXE-HDSBOLT3-25S | 1/4"-20 | 3.250 | 0.750 to 1.000 | **$4.70** |
| DXE-HDSBOLT2-75S | 1/4"-20 | 2.750 | 0.750 to 1.000 | **$4.35** |
| DXE-HDSBOLT2-5S | 1/4"-20 | 2.500 | 0.750 to 1.000 | **$4.00** |

Bolt Set Dimensions in Inches

## Saddle Clamp Reinforcement Plates

DX ENGINEERING

We sell these stainless steel reinforcement plates separately because Hams and professionals have found so many interesting uses for them. From panel repair and shimming to drill guides and chassis covers, we're amazed at the new applications you've discovered for our backing plates.

Of course, they're also perfect replacements for lost or damaged Super Duty and Heavy Duty Saddle Clamp Reinforcement Plates. Check the nearby clamps chart for the dimensions that match these reinforcement plates.

| Part Number | Matching Saddle Clamp Part Number | For Saddle Clamp Size | Price |
|---|---|---|---|
| **Super Duty Saddle Clamp Reinforcement Plates** | | | |
| DXE-SDSBP-300 | For Saddle Clamp DXE-SDS-300P | 3.00" | **$19.95** |
| DXE-SDSBP-250 | For Saddle Clamp DXE-SDS-250P | 2.50" | **$13.95** |
| DXE-SDSBP-200 | For Saddle Clamp DXE-SDS-200P | 2.00" | **$11.45** |
| **Heavy Duty Saddle Clamp Reinforcement Plates** | | | |
| DXE-HDSBP-200A | For Saddle Clamp DXE-HDS-200AP | 2.000" | **$5.45** |
| DXE-HDSBP-175A | For Saddle Clamp DXE-HDS-175AP | 1.750" | **$4.95** |
| DXE-HDSBP-150A | For Saddle Clamp DXE-HDS-150AP | 1.500" | **$4.95** |
| DXE-HDSBP-125A | For Saddle Clamp DXE-HDS-125AP | 1.250" | **$4.95** |
| DXE-HDSBP-100A | For Saddle Clamp DXE-HDS-100AP | 1.000" | **$4.95** |
| DXE-HDSBP-075A | For Saddle Clamp DXE-HDS-075AP | 0.750" | **$4.45** |

CYCLE 24

## Galvanized Economy Saddle Clamps

Though designed for antenna building, these budget-friendly Cycle 24 clamps can be the perfect solution for any mounting, installation or bracketing project. The clamps are made to withstand decades of indoor and outdoor use. Each clamp includes nuts, U-bolt and saddle.

| Part Number | For Tubing Size | Thread Pitch | Thread Length | Price |
|---|---|---|---|---|
| CYT-CL125SG | 1.250" | 5/16"-18 | 1.000" | **$3.00** |
| CYT-CL150SG | 1.500" | 5/16"-18 | 1.000" | **$4.00** |
| CYT-CL175SG | 1.750" | 5/16"-18 | 1.000" | **$5.00** |
| CYT-CL2000516SG | 2.000" | 5/16"-18 | 1.000" | **$5.00** |
| CYT-CL2125SG | 2.125" | 5/16"-18 | 1.500" | **$5.50** |
| CYT-CL2250SG | 2.250" | 3/8"-16 | 1.500" | **$7.00** |
| CYT-CL2500SG | 2.500" | 3/8"-16 | 1.500" | **$7.25** |
| CYT-CL3000SG | 3.000" | 3/8"-16 | 1.500" | **$8.00** |
| CYT-CL3500SG | 3.500" | 3/8"-16 | 1.500" | **$8.50** |

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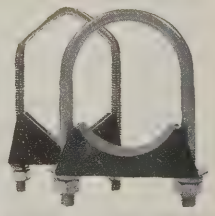


## Saddle Clamps with Powdercoated Saddles

- Stainless steel flat washers, lock washers, nuts and bolts
- Black powdercoated saddle finish

U-Bolt Style

| U-Bolt Part Number | Nominal Size | Thread Bolt Size | Price Each |
|---|---|---|---|
| DXE-PSAD-050A | 0.50" | 1/4"-20 | **$14.95** |
| DXE-PSAD-075A | 0.75" | 1/4"-20 | **$15.15** |
| DXE-PSAD-100A | 1.00" | 1/4"-20 | **$15.35** |
| DXE-PSAD-125A | 1.25" | 1/4"-20 | **$15.65** |
| DXE-PSAD-150A | 1.50" | 1/4"-20 | **$15.95** |
| DXE-PSAD-175A | 1.75" | 1/4"-20 | **$16.25** |
| DXE-PSAD-200A | 2.00" | 5/16"-18 | **$16.55** |
| DXE-PSAD-250A | 2.50" | 5/16"-18 | **$16.85** |
| DXE-PSAD-300A | 3.00" | 5/16"-18 | **$18.95** |

DXE-PSAD-200A

V-Bolt Style

| V-Bolt Part Number | Nominal Size | Thread Bolt Size | Price Each |
|---|---|---|---|
| DXE-PCAVS-1P | 0.50"-1.75" | 1/4"-20 | **$11.95** |
| DXE-PCAVS-2P | 1.00"-2.00" | 5/16"-18 | **$13.95** |

DXE-PCAVS-2P

DX ENGINEERING®

## DX Engineering U-Bolt Saddle Clamps

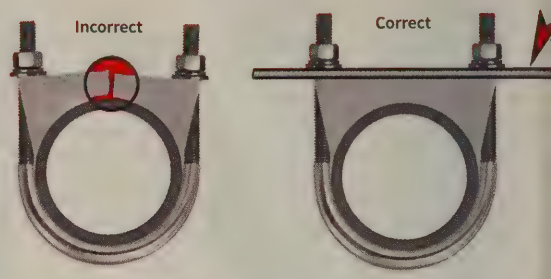
Unlike common hardware store clamps that are sized to fit pipe, our clamps are designed and sized to fit tubing.

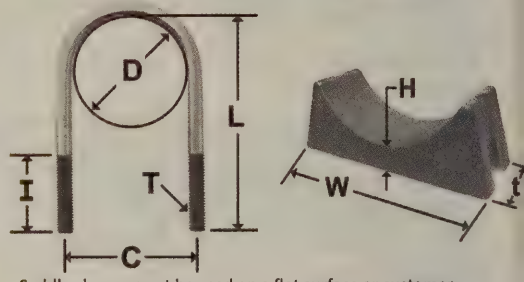
The U-Bolt Saddle Clamps come with high strength, 18-8 grade stainless steel U-bolts that are long enough to attach tubing or components to thick mounting plates. The U-bolts are available in 1/4 inch, 5/16 inch and 3/8 inch as listed. Note that the 2 inch, 2.5 inch and 3 inch clamps are available with either 5/16 inch or 3/8 inch U-bolts.

The U-Bolt Saddle Clamp saddles are cast from high strength 535 aluminum, which has superior anti-corrosion properties. Unlike stamped or machined types, the saddles' rippled surface grips tubing closely for a secure fit.

The U-Bolt Saddle Clamps are designed for use with mounting plates, which are available separately. The clamps are sold only as a set with aluminum saddle, stainless steel U-bolts, nuts, flat washers and lock washers.

The use of a lubricant and sealant, such as Jet Lube SS-30 (JTL-2555), is highly recommended to achieve proper torque and prevent galling. DX Engineering sells replacement U-bolts with hardware kits.




| Size | DXE Part Number | D | L | C | I | T | Hole Size | W | H | t | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.50 | DXE-SAD-050A | 0.50 | 1.35 | 0.75 | 0.87 | 1/4"-20 | 0.266 "H" | 0.90 | 0.188 | 0.63 | **$6.45** |
| 0.75 | DXE-SAD-075A | 0.75 | 1.81 | 1.00 | 0.87 | 1/4"-20 | 0.266 "H" | 1.13 | 0.188 | 0.75 | **$6.95** |
| 1.00 | DXE-SAD-100A | 1.00 | 2.06 | 1.25 | 0.87 | 1/4"-20 | 0.266 "H" | 1.50 | 0.250 | 1.00 | **$7.45** |
| 1.25 | DXE-SAD-125A | 1.25 | 2.37 | 1.50 | 0.87 | 1/4"-20 | 0.266 "H" | 1.75 | 0.250 | 1.00 | **$8.95** |
| 1.50 | DXE-SAD-150A | 1.50 | 2.62 | 1.75 | 0.87 | 1/4"-20 | 0.266 "H" | 2.00 | 0.250 | 1.00 | **$9.45** |
| 1.75 | DXE-SAD-175A | 1.75 | 3.00 | 2.00 | 1.00 | 1/4"-20 | 0.266 "H" | 2.31 | 0.250 | 1.00 | **$9.95** |
| 2.00 | DXE-SAD-200A | 2.00 | 3.43 | 2.31 | 1.12 | 5/16"-18 | 0.332 "Q" | 2.62 | 0.375 | 1.00 | **$10.95** |
| 2.00 | DXE-SAD-200B | 2.00 | 4.00 | 2.37 | 1.50 | 3/8"-16 | 0.397 "X" | 2.62 | 0.375 | 1.00 | **$12.45** |
| 2.50 | DXE-SAD-250A | 2.50 | 4.18 | 2.81 | 1.25 | 5/16"-18 | 0.332 "Q" | 3.13 | 0.375 | 1.13 | **$12.95** |
| 2.50 | DXE-SAD-250B | 2.50 | 4.75 | 2.87 | 1.75 | 3/8"-16 | 0.397 "X" | 3.13 | 0.375 | 1.13 | **$14.45** |
| 3.00 | DXE-SAD-300A | 3.00 | 4.68 | 3.31 | 1.25 | 5/16"-18 | 0.332 "Q" | 3.62 | 0.375 | 1.25 | **$14.45** |
| 3.00 | DXE-SAD-300B | 3.00 | 5.25 | 3.37 | 1.75 | 3/8"-16 | 0.397 "X" | 3.62 | 0.375 | 1.25 | **$15.95** |
| 4.00 | DXE-SAD-400A | 4.05 | 5.56 | 4.43 | 1.50 | 3/8"-18 | 0.397 "X" | 4.80 | 0.438 | 1.50 | **$34.95** |
| 4.50 | DXE-SAD-450A | 4.55 | 6.06 | 4.93 | 1.50 | 3/8"-16 | 0.397 "X" | 5.30 | 0.438 | 1.50 | **$39.95** |

Saddle clamps must be used on a flat surface or customer supplied backing plate. Personal injury and property damage can occur without proper installation. Always use a lubricant such as Never-Seez® or Anti-Seize to prevent the stainless steel hardware from seizing.

### DX Engineering Clamps Have Hundreds of Uses!

DX Engineering U-Bolt, V-Bolt, and Band Clamps are very versatile. For example, we've seen the ECLS Studded Band Clamps used to fasten merchandise display signs to upright tubing. Have you used DX Engineering clamps for other, non-antenna projects?

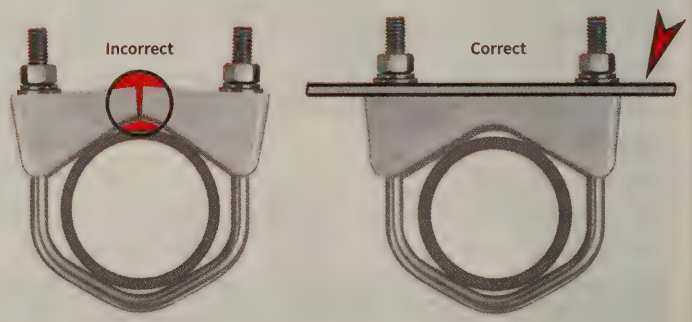
We'd love to know about it—drop us a note and send pictures if you have them!

Suggested Hole Size: 0.266" is letter "H" drill bit, 0.332" is letter "Q" drill bit, and 0.397" is letter "X" drill bit. All U-Bolts are formed from premium 18-8 stainless steel.
All Saddles are cast 535 aluminum. All Saddle Clamp Sets are supplied with 18-8 stainless steel nuts and lock washers. Dimensions shown are in inches. Note: These are NOT Automotive Muffler Clamps.

## DX Engineering V-Bolt Saddle Clamps

Our V-Bolt Saddle Clamps are sized to fit ranges of tubing. The V-bolts are long enough to attach tubing or components to thick plates and are highly corrosion-resistant.

The V-Bolt Saddle Clamps are intended for use with a backing plate or mounting plate to retain the bolt spacing. The saddles' rippled surface will clamp tubing securely to a flat surface.




**Features**

- 18-8 stainless steel V-bolts with nuts, flat washers and lock washers
- Cast aluminum saddles with rippled surface
- Available in a number of size ranges

**Tubing Recommendations**

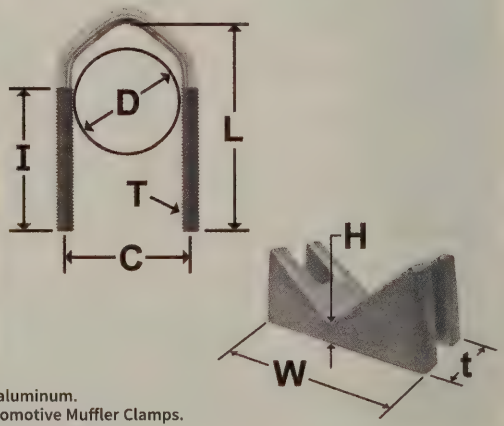
DXE-CAVS-1P: fits 1/2 inch to 1 3/4 inch OD tubing, 1/4"-20 bolt

DXE-CAVS-11P: fits 1/2 inch to 1 3/4 inch OD tubing, 5/16"-18 bolt

DXE-CAVS-2P: fits 1 inch to 2 inch OD tubing, 5/16"-18 bolt

DXE-CAVS-3P: fits 2 inch to 3 inch OD tubing, 3/8"-16 bolt

The clamps are sold only as a set with aluminum saddle, stainless steel V-bolts, nuts, flat washers and lock washers. The use of a lubricant and sealant, such as Jet Lube SS-30 (JTL-2555), is highly recommended to achieve proper torque and prevent galling. For high torque load applications where the tubing is subjected to twisting motion, we recommend using our U-Bolt Saddle Clamps.



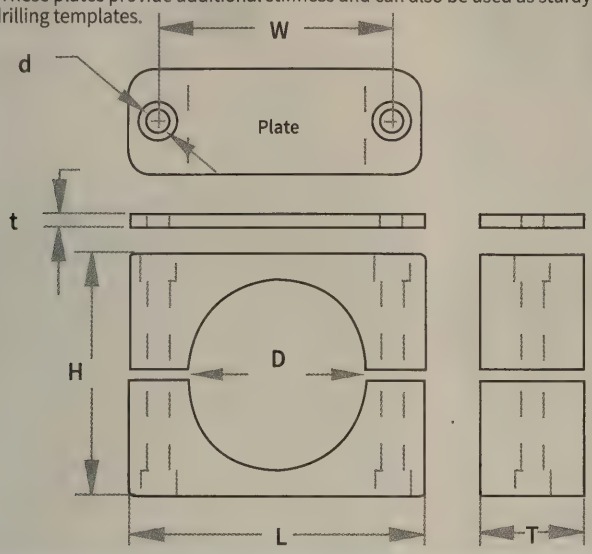

| Nominal Size | DXE Part Number | D | L | C | I | T | Hole Size | W | H | t | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.50 to 1.75 | DXE-CAVS-1P | 1.75 | 3.438 | 1.968 | 2.313 | 1/4"-20 | 0.266 "H" | 2.313 | 0.250 | 1 | **$11.95** |
| 0.50 to 1.75 | DXE-CAVS-11P | 1.75 | 3.438 | 2.063 | 2.313 | 5/16"-18 | 0.332 "Q" | 2.313 | 0.250 | 1 | **$12.95** |
| 1 to 2 | DXE-CAVS-2P | 2.00 | 3.438 | 2.313 | 2.000 | 5/16"-18 | 0.332 "Q" | 2.835 | 0.375 | 1 | **$13.95** |
| 2 to 3 | DXE-CAVS-3P | 3.13 | 4.610 | 3.500 | 1.750 | 3/8"-16 | 0.397 "X" | 4.250 | 0.500 | 2 | **$18.95** |

All dimensions are in inches. Note: DXE-CAVS-1/11/2P saddle material is cast 535 aluminum, DXE-CAVS-3P saddle material is cast 319 aluminum.
Suggested Hole Size: 0.266" is letter "H" drill bit, 0.332" is letter "Q" drill bit, and 0.397" is letter "X" drill bit. Note: These are NOT Automotive Muffler Clamps.

## DX Engineering Resin Support Block Clamps

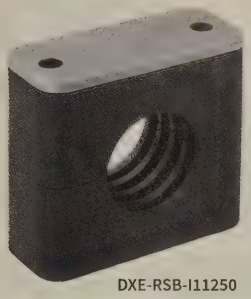
Our Resin Support Block Clamps are ideal for securing mounting brackets or plates to tubing, while also providing electrical insulation. That makes the clamps a good choice for electronic components. The clamps are sturdy and provide a strong, well-insulated mounting that is easy to construct. They are available in many sizes for most any project you might have.

The Resin Support Block is shown with an optional stainless steel reinforcement plate. These plates provide additional stiffness and can also be used as sturdy hole-drilling templates.




**Support Block Dimensions in Inches**

| Block Part Number | Tube OD | d | H | T | L | W | Reinforcement Plate Required | Price Each |
|---|---|---|---|---|---|---|---|---|
| DXE-RSB-I02500 | 1/4 | 1/4 | 1.050 | 1.185 | 1.350 | 0.784 | DXE-RSB-DP-1 | **$2.95** |
| DXE-RSB-I03125 | 5/16 | 5/16 | 1.050 | 1.185 | 1.350 | 0.784 | DXE-RSB-DP-1 | **$3.45** |
| DXE-RSB-I03750 | 3/8 | 3/8 | 1.050 | 1.185 | 1.350 | 0.784 | DXE-RSB-DP-1 | **$3.45** |
| DXE-RSB-I05000 | 1/2 | 1/2 | 1.290 | 1.192 | 1.595 | 1.024 | DXE-RSB-DP-2 | **$3.45** |
| DXE-RSB-I06250 | 5/8 | 5/8 | 1.290 | 1.192 | 1.595 | 1.024 | DXE-RSB-DP-2 | **$3.45** |
| DXE-RSB-I03400 | 3/4 | 3/4 | 1.394 | 1.186 | 1.910 | 1.301 | DXE-RSB-DP-3 | **$3.95** |
| DXE-RSB-I10000 | 1.000 | 1.000 | 1.394 | 1.186 | 1.910 | 1.301 | DXE-RSB-DP-3 | **$4.45** |
| DXE-RSB-I11250 | 1.125 | 1.125 | 1.665 | 1.189 | 2.258 | 1.575 | DXE-RSB-DP-4 | **$5.95** |
| DXE-RSB-I12500 | 1.250 | 1.250 | 2.292 | 1.182 | 2.760 | 2.050 | DXE-RSB-DP-5 | **$5.95** |
| DXE-RSB-I11500 | 1.500 | 1.500 | 2.292 | 1.182 | 2.760 | 2.050 | DXE-RSB-DP-5 | **$6.45** |
| DXE-RSB-I13400 | 1.750 | 1.750 | 2.674 | 1.184 | 3.394 | 2.600 | DXE-RSB-DP-6 | **$10.95** |
| DXE-RSB-I20000 | 2.000 | 2.000 | 2.678 | 1.184 | 3.394 | 2.600 | DXE-RSB-DP-6 | **$11.95** |
| DXE-RSB-I22500 | 2.250 | 2.250 | 2.904 | 1.184 | 3.394 | 2.600 | DXE-RSB-DP-6 | **$11.95** |


DXE-RSB-I11250

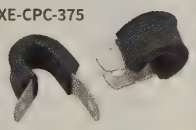
**Reinforcement Plates Dimensions in Inches**

| Part Number | d | t | W | Each |
|---|---|---|---|---|
| DXE-RSB-DP-1 | 0.275 | 0.119 | 0.784 | **$5.95** |
| DXE-RSB-DP-2 | 0.275 | 0.119 | 1.024 | **$5.95** |
| DXE-RSB-DP-3 | 0.275 | 0.119 | 1.301 | **$5.95** |
| DXE-RSB-DP-4 | 0.275 | 0.119 | 1.575 | **$6.45** |
| DXE-RSB-DP-5 | 0.275 | 0.119 | 2.050 | **$6.45** |
| DXE-RSB-DP-6 | 0.275 | 0.119 | 2.600 | **$7.45** |

DX ENGINEERING

## Cushioned P-Clamps

DXE-CPC-375



DX Engineering P-Clamps are ideal for providing strain relief of coaxial cable connections. The rubber insert grips the cable jacket securely without nicking or cutting the jacket, preventing water entry.

DXE-CPC-250 For RG-8X, RG-6, RG-59 Cable, Pack of 10.....**$15.95**

DXE-CPC-375 For RG-213, RG-8, RG-11 Cable, Pack of 10.....**$15.95**

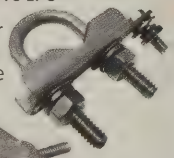
## Stainless Steel Element Clamps

Typical elements are built using 0.058 inch wall tubing, which allows successive sizes to slide together with good contact. Use these clamps to hold the telescoping tubing in place. The stainless steel construction makes them ideal for corrosive environments.

| Part Number | For Tubing Size (OD) | Per Pack | Price |
|---|---|---|---|
| DXE-ECL-0500-10P | ≤ 0.500" | 10 | **$18.95** |
| DXE-ECL-0625-10P | 0.625" | 10 | **$18.95** |
| DXE-ECL-0750-10P | 0.750" | 10 | **$18.95** |
| DXE-ECL-0875-10P | 0.875" | 10 | **$18.95** |
| DXE-ECL-1000-10P | 1.000" | 10 | **$18.95** |
| DXE-ECL-1250-10P | 1.125"-1.250" | 10 | **$18.95** |
| DXE-ECL-1500-10P | 1.375"-1.500" | 10 | **$18.95** |
| DXE-ECL-1750-10P | 1.625"-1.750" | 10 | **$18.95** |
| DXE-ECL-2000-10P | 1.875"-2.000" | 10 | **$19.95** |
| DXE-ECL-2250-5P | 2.125"-2.250" | 5 | **$9.95** |
| DXE-ECL-2500-5P | 2.375"-2.500" | 5 | **$9.95** |
| DXE-ECL-2750-5P | 2.625"-2.750" | 5 | **$9.95** |
| DXE-ECL-3000-5P | 2.875"-3.000" | 5 | **$9.95** |
| DXE-ECL-3250-5P | 3.25" (max.) | 5 | **$9.95** |
| **Multi-Packs with Pairs of Assorted Sizes** | | | |
| DXE-ECL-MP1 | 0.500"-1.500" | 14 | **$12.95** |
| DXE-ECL-MP2 | 1.000"-2.250" | 12 | **$14.95** |
| DXE-ECL-MP3 | 2.125"-3.250" | 12 | **$13.95** |

## Stainless Steel V-Clamps

DXE-SSVC-1PG



DXE-SSVC-150PG

Our stainless steel V-clamps are ideal for mounting accessories to steel pipe. The V-saddle has serrations that bite into the tube or pipe surface, providing a strong, secure hold. For this reason, these clamps are not recommended for aluminum tubing or pipe. The bolts supplied are long enough to attach tubing to thick plates and have anti-corrosive properties for long life. Some clamps are available with a tab and 1/4" hardware for adding grounding wires.

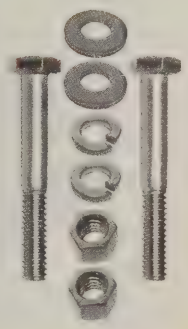
| V-Clamp Part Number | Pipe Size | Ground Lug | Price Each |
|---|---|---|---|
| DXE-SSVC-1P | 1/2" to 3/4" | No | **$7.45** |
| DXE-SSVC-1PG | 1/2" to 3/4" | Yes | **$8.45** |
| DXE-SSVC-150P | 1" to 1.5" | No | **$10.45** |
| DXE-SSVC-150PG | 1" to 1.5" | Yes | **$11.45** |
| DXE-SSVC-2P | 1" to 2" | No | **$12.45** |
| DXE-SSVC-3P | 2.375" to 3" | No | **$15.45** |

## ECLS-Series Band Clamps with Stud

The ECLS-Series clamps are made from marine grade stainless steel with a 10-24 stud welded to the band. They are ideal for mechanical fastening to round or odd-shaped members. The clamps can be used for electrical connections (including grounding) or for mechanical assembly of components, attachment of signs, etc. Threaded hardware included.

| Part Number | Size | Price (2) |
|---|---|---|
| DXE-ECLS-050 | 0.500" OD tube | **$12.95** |
| DXE-ECLS-062 | 0.625" OD tube | **$12.95** |
| DXE-ECLS-075 | 0.750" OD tube | **$12.95** |
| DXE-ECLS-087 | 0.875" OD tube | **$12.95** |
| DXE-ECLS-100 | 1.000" OD tube | **$12.95** |
| DXE-ECLS-125 | 1.250" OD tube | **$12.95** |
| DXE-ECLS-150 | 1.500" OD tube | **$12.95** |
| DXE-ECLS-175 | 1.750" OD tube | **$12.95** |
| DXE-ECLS-200 | 2.000" OD tube | **$12.95** |
| DXE-ECLS-225 | 2.250" OD tube | **$12.95** |
| DXE-ECLS-250 | 2.500" OD tube | **$12.95** |
| DXE-ECLS-275 | 2.750" OD tube | **$12.95** |
| DXE-ECLS-300 | 3.000" OD tube | **$13.95** |
| DXE-ECLS-325 | 3.250" OD tube | **$13.95** |

## Hex Bolt Hardware Sets



You've spent a lot of time and money on your installation; don't compromise its integrity with inferior hardware. These nut and bolt sets have been designed and tested for Amateur Radio applications. They are made precisely for DX Engineering's own Super Duty Saddle Clamps, Heavy Duty Saddle Clamps and Resin Support Blocks.

Each "RSBBOLT" set includes a matched pair of nuts and bolts, plus 2 flat washers and 2 split washers. The bolt thread is 1/4"-20 and the bolt hex head is SAE 7/16".

| Part Number | Bolt Length | Price |
|---|---|---|
| DXE-RSBBOLT1-50 | 1.5" | **$4.15** |
| DXE-RSBBOLT1-75 | 1.75" | **$4.20** |
| DXE-RSBBOLT2-00 | 2.00" | **$4.25** |
| DXE-RSBBOLT2-25 | 2.25" | **$4.30** |
| DXE-RSBBOLT2-50 | 2.50" | **$4.35** |
| DXE-RSBBOLT2-75 | 2.75" | **$4.40** |
| DXE-RSBBOLT3-25 | 3.25" | **$4.45** |
| DXE-RSBBOLT3-50 | 3.50" | **$4.50** |

## Hardware Sets for Resin Support Block Clamps

DX Engineering makes these hardware kits precisely for the Resin Support Block Clamps. The sets include a matched pair of stainless steel nuts and bolts, a pair of split washers, and two pair of small/large flat washers. Select your kit based on bolt length below.

DXE-RSBSBOLT2-50 Resin Support Block Hardware, 2.50" Bolts..... **$4.95**

DXE-RSBSBOLT2-75 Resin Support Block Hardware, 2.75" Bolts..... **$4.95**

DXE-RSBSBOLT3-00 Resin Support Block Hardware, 3.00" Bolts..... **$4.95**

DX ENGINEERING

### HF Antenna Mounting Heavy Duty Tilt and Pivot Bases

Shown with optional parts.

You don't have to call a buddy—these bases let you raise your antenna without asking for help. They're perfect for both monoband and multi-band HF vertical antennas. In fact, these are the same bases supplied with many of DX Engineering's vertical antenna kits.

Made with stainless steel components and extra-strong Extren® insulated channels, DX Engineering Tilt and Pivot Bases are an excellent HF antenna mounting solution. Visit DXEngineering.com to see exact installation parameters.

DXE-VA-PIVOT-3 Tilt and Pivot Base, for 3" OD Base Tubing..... **$457.95**

DXE-VA-PIVOT-4 Tilt and Pivot Base, for 4" OD Base Tubing..... **$944.95**

DXE-FTK50A-HD

DX ENGINEERING

### 50 Foot Telescoping Fiberglass Tubing Mast Kit

- Custom-made tubing for DX Engineering
- Smoothly telescoping
- Neutral light gray color
- Includes DX Engineering Stainless Steel Element Clamps to assemble slit lengths

DXE-FTK50A Telescoping Tubing Kit...**$198.95**

DXE-FTK50A-HD HD Telescoping Tubing Kit.....**$289.60**

### Telescoping Tubing Compression Clamp Kits

If you're putting together a mast with telescoping fiberglass tubing, then these clamp kits are invaluable assets. These are custom-designed clamshell-type clamps that securely hold each tubing section with two stainless steel band clamps. You get 6 of the clamshell clamps and 12 of DX Engineering's stainless steel band clamps.

DXE-TCC-KIT1 Compression Clamp Kit, for 2" to 0.5" Tubing..... **$43.95**

DXE-TCC-KIT2 Compression Clamp Kit, for 2.75" to 2" Tubing..... **$29.95**

DX ENGINEERING

DXE-VA-BASE

DXE-ATK65A

### Telescoping Aluminum Antenna Kit

- Eleven telescoping sections from 2" to 7/8" OD
- Stainless steel element clamps

DXE-ATK65A Telescoping Aluminum Antenna Kit.....**$209.95**

DXE-VE-BASE Vertical Antenna Fixed Base Assembly, Insulated .....**$99.95**

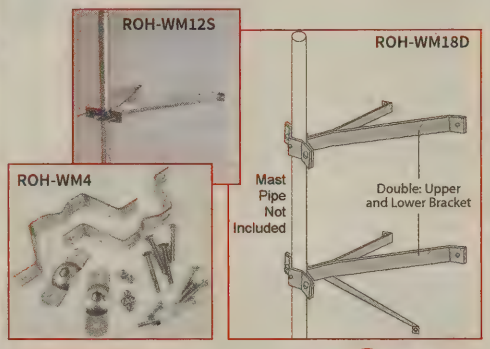
DXE-VA-BASE Vertical Antenna Tilt Base Assembly, Insulated.....**$159.95**

### Guy Rings

You can use DX Engineering's newly engineered Guy Rings to secure your rope guys and stabilize your DX Engineering, Hustler or other aluminum vertical antenna. They're also great for our Telescoping Fiberglass and Aluminum Tubing Kits.

These guy rings are super strong, virtually impervious to the elements and fit 0.75", 1.0", 1.25", 1.50" and 2.0" OD tubing.
For all the specs, please visit DXEngineering.com.

DXE-GR-5P Guy Rings, Set of 5 ..... **$8.95**




### Wall Mounts

ROHN Products LLC

Take advantage of rigid walls; use a Rohn Wall Mount to install your antenna. These mounts include all the clamps and hardware you need, just add your mast and you're ready to go. They handle .875"-2.75" OD tubing and hold the mast away from your wall. They're hot-dip galvanized to resist corrosion.

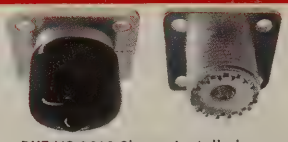
| Part Number | Wall Clearance | Brackets Included | Price |
|---|---|---|---|
| ROH-WM4 | 3" | 2 | $29.95 |
| ROH-WM12S | 12" | 1 | $31.95 |
| ROH-WM18S | 18" | 1 | $39.95 |
| ROH-WM18D | 18" | 2 | $54.95 |
| ROH-WM24S | 24" | 1 | $39.95 |
| ROH-WM24D | 24" | 2 | $52.95 |

### Ridgid® Tubing Cutter

This high-quality cutter will make clean, smooth edges in tubing sections that require minimal deburring. The tool can cut aluminum, copper and brass tubing as well as thin-wall conduit.

- Adjustable from 1/4 inch to 1 1/8 inch OD
- Telescoping feed screw design
- Enclosed feed screw eliminates clogging
- Grooved rollers for close-to-flare cuts
- Fold-away reamer
- X-CEL knob and pin for quicker cutting
- Spare cutter wheel included

DXE-31622 Ridgid Tubing Cutter.....**$41.95**



DXE-VC-0612 Shown Installed

DX ENGINEERING

DXE-VPC-0677 Shown Installed

### Vinyl End Caps

Fit these over your tubing or pipe to keep out moisture. Water can build up inside open tubes and rust or, worse yet, freeze and burst the pipe. These UV-rated black vinyl end caps are also great for sealing your booms or Yagi elements.

| Part Number | Length | Tubing Size (OD) | Quantity | Price |
|---|---|---|---|---|
| DXE-VC-0125 | 1.000" | 0.125" | 20 | $5.50 |
| DXE-VC-0250 | 0.500" | 0.250" | 20 | $5.50 |
| DXE-VC-0375 | 0.500" | 0.375" | 20 | $5.50 |
| DXE-VC-0500 | 0.500" | 0.500" | 20 | $5.75 |
| DXE-VC-0625 | 1.000" | 0.625" | 20 | $6.75 |
| DXE-VC-0750 | 1.000" | 0.750" | 20 | $5.50 |
| DXE-VC-0875 | 1.000" | 0.875" | 10 | $5.75 |
| DXE-VC-1000 | 1.000" | 1.000" | 10 | $5.75 |
| DXE-VC-1125 | 1.000" | 1.125" | 10 | $7.25 |
| DXE-VC-1250 | 1.000" | 1.250" | 10 | $7.25 |
| DXE-VC-1375 | 1.000" | 1.375" | 8 | $8.95 |
| DXE-VC-1500 | 1.000" | 1.500" | 6 | $5.25 |
| DXE-VC-1625 | 1.000" | 1.625" | 4 | $5.75 |
| DXE-VC-1750 | 1.000" | 1.750" | 4 | $5.75 |
| DXE-VC-1875 | 1.000" | 1.875" | 4 | $6.75 |
| DXE-VC-2000 | 1.000" | 2.000" | 2 | $4.50 |
| DXE-VC-2250 | 1.000" | 2.250" | 2 | $4.95 |
| DXE-VC-3000 | 1.000" | 3.000" | 2 | $4.95 |
| DXE-VPC-0677 caps are ideal for PL-259 connectors and the DXE-VC-0612 for SO-239 connectors. | | | | |
| DXE-VPC-0677 | 1.437" | 0.677" | 20 | $6.95 |
| DXE-VC-0612 | 0.500" | 0.612" | 20 | $5.75 |

### Aluminum Tripod

COMET

The perfect companion to your Telescopic Aluminum Mast, this portable tripod is an easy way to get on the air for Field Day or EMCOMM. It can handle a guyed mast up to 55 inches long while supporting 22 pounds of antenna load.

CMA-YS-45 Aluminum Tripod..... **$129.95**

ROHN Products LLC

### Tripod Roof Towers

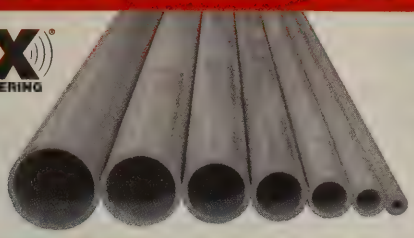
These towers feature a universal clamp that is capable of mounting masts with up to 1.75 in. diameters. The bolt-on swivel feet adjust to the pitch of almost any roof. Installation is simple and fast with lag screws (not included) in the base feet that securely anchor the towers for long, trouble-free service. Rohn tripod roof towers feature a lower mast support bracket, hot-dip galvanized construction for corrosion protection and prevailing torque locknuts on the bolt-on feet.

ROH-TRT36 Tripod Roof Tower, 3'.....**$65.95**

ROH-TRT60 Tripod Roof Tower, 5'.....**$78.95**

**Adjustable House Brackets.** Perfect for bracing your lightly guyed or self-supporting Rohn 25G series tower, these adjustable brackets let you compensate for eaves and overhangs. They're great solutions if your community requires all self-supported or guyed towers to be bracketed.

| Part Number | Wall Clearance | Width | Price |
|---|---|---|---|
| ROH-HB25BG | Adjustable 0-24" | 25" | $142.95 |
| ROH-HB25AG | Adjustable 0-15" | 25" | $145.95 |
| ROH-HB25CG | Adjustable 0-36" | 30" | $167.95 |



## Fiberglass Tubing

DX Engineering 1/8" wall extruded fiberglass tubing is available in telescoping lengths. The strong 8 foot lengths are ideal for building your own antenna support, like quad spreaders and insulated UHF stacking frames—even push-up masts.

The optional slit ends are ideal for clamping without drilling (drilling weakens the tubing). Don't forget DX Engineering Stainless Steel Element Clamps for a final, long-lasting assembly or easy-to-assemble portable installation.

**Telescoping Fiberglass Tubing, No Slit**

| Part Number | OD | Wall | Length | Each |
|---|---|---|---|---|
| DXE-FT0500-8 | 0.500" | 0.125" | 8 Foot | $6.45 |
| DXE-FT0750-8 | 0.750" | 0.125" | 8 Foot | $8.95 |
| DXE-FT1000-8 | 1.000" | 0.125" | 8 Foot | $9.95 |
| DXE-FT1250-8 | 1.250" | 0.125" | 8 Foot | $11.95 |
| DXE-FT1500-8 | 1.500" | 0.125" | 8 Foot | $18.95 |
| DXE-FT1750-8 | 1.750" | 0.125" | 8 Foot | $20.95 |
| DXE-FT2000-8 | 2.000" | 0.125" | 8 Foot | $25.95 |
| DXE-FT2250-8 | 2.250" | 0.125" | 8 Foot | $34.95 |
| DXE-FT2500-8 | 2.500" | 0.125" | 8 Foot | $38.95 |
| DXE-FT2750-8 | 2.750" | 0.125" | 8 Foot | $44.95 |

**Telescoping Fiberglass Tubing with One End Slit**

| Part Number | OD | Wall | Length | Each |
|---|---|---|---|---|
| DXE-FT0750-8S | 0.750" | 0.125" | 8 Foot | $13.95 |
| DXE-FT1000-8S | 1.000" | 0.125" | 8 Foot | $14.95 |
| DXE-FT1250-8S | 1.250" | 0.125" | 8 Foot | $16.95 |
| DXE-FT1500-8S | 1.500" | 0.125" | 8 Foot | $23.95 |
| DXE-FT1750-8S | 1.750" | 0.125" | 8 Foot | $25.95 |
| DXE-FT2000-8S | 2.000" | 0.125" | 8 Foot | $30.95 |
| DXE-FT2250-8S | 2.250" | 0.125" | 8 Foot | $39.95 |
| DXE-FT2500-8S | 2.500" | 0.125" | 8 Foot | $44.95 |
| DXE-FT2750-8S | 2.750" | 0.125" | 8 Foot | $49.95 |

DXE-UT-KIT-DBR

DXE-UT-2125

DXE-UT-3500

## Pipe and Tube Deburring Tools

If you're building a tower, mast or beam antenna, these tools will be worth their weight in gold. They make the tedious deburring process much easier. These tools smooth the rough edges on the inside and outside of your telescoping aluminum, fiberglass, copper, steel or plastic pipe and tubing, assuring a smooth surface when joined with another section.

You can purchase each tool separately or together in a kit that includes both deburring tools, a small hand deburring tool, half-round file and a carrying case.

DXE-UT-KIT-DBR Deburring Tool Kit.....$73.95

DXE-UT-2125 Deburring Tool, for .375" to 2.125" OD Tubing.....$24.95

DXE-UT-3500 Deburring Tool, for 1.875" to 3.5" OD Tubing.....$29.95

## Aluminum Tubing

Custom-made for DX Engineering, this high strength Type 6063-T832 seamless drawn aluminum tubing is available in 3 and 6 foot lengths. Type 6063 alloy provides good resistance to general corrosion, including stress corrosion cracking and has excellent surface appearance.

Use the 3 foot lengths for fast taper, low-wind resistance applications. The 6 foot slow taper lengths afford the greatest bandwidth. Most sizes are slit on one end for use with DX Engineering Stainless Steel Element Clamps. If unslit ends are required for your application, merely insert the slit end into the next larger size in the stack and use your own attachment method.

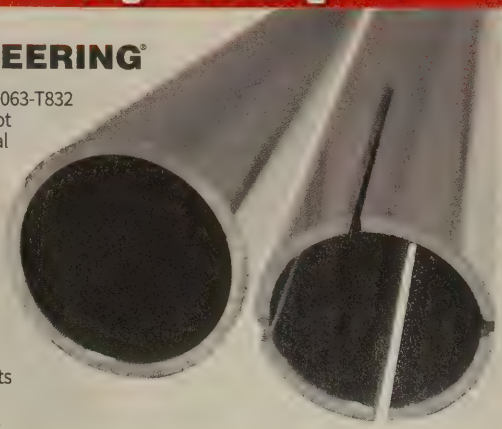
The 0.058 inch wall tubing is available in 1/8 inch increments from 3/8 inch to 2 1/8 inch OD It is ideal for a free, yet solid telescoping fit from size to size for vertical or Yagi elements. Some larger sizes are available in 0.120 inch wall, 6061-T8 aluminum, which assures maximum strength at very long assembly lengths.

- High strength Type 6063 seamless aluminum tubing—drawn, not extruded
- Ideal for telescoping antenna elements, support masts and booms
- Available in unslit and pre-slit lengths
- Use DX Engineering Stainless Steel Element Clamps to assemble lengths of slit tubing

**Stainless steel element clamps for exact tubing sizes are available at DXEngineering.com.**

**Aluminum Tubing, No Slit**

| Part Number | OD | Wall | Length | Each |
|---|---|---|---|---|
| DXE-AT1240 | 0.375" | 0.058" | 3 Foot | $2.25 |
| DXE-AT1494 | 0.500" | 0.058" | 3 Foot | $2.40 |
| DXE-AT1495 | 0.625" | 0.058" | 3 Foot | $2.70 |
| DXE-AT1496 | 0.750" | 0.058" | 3 Foot | $3.00 |
| DXE-AT1497 | 0.875" | 0.058" | 3 Foot | $3.10 |
| DXE-AT1498 | 1.000" | 0.058" | 3 Foot | $3.25 |
| DXE-AT1499 | 1.125" | 0.058" | 3 Foot | $3.60 |
| DXE-AT1500 | 1.250" | 0.058" | 3 Foot | $4.15 |
| DXE-AT1501 | 1.375" | 0.058" | 3 Foot | $4.45 |
| DXE-AT1502 | 1.500" | 0.058" | 3 Foot | $4.85 |
| DXE-AT1503 | 1.625" | 0.058" | 3 Foot | $5.25 |
| DXE-AT1504 | 1.750" | 0.058" | 3 Foot | $5.70 |
| DXE-AT1505 | 1.875" | 0.058" | 3 Foot | $6.15 |
| DXE-AT1506 | 2.000" | 0.058" | 3 Foot | $6.60 |
| DXE-AT1255 | 2.000" | 0.120" | 3 Foot | $17.85 |
| DXE-AT1507 | 2.125" | 0.058" | 3 Foot | $7.05 |
| DXE-AT1189 | 0.375" | 0.058" | 6 Foot | $4.20 |
| DXE-AT1480 | 0.500" | 0.058" | 6 Foot | $4.50 |
| DXE-AT1481 | 0.625" | 0.058" | 6 Foot | $5.10 |
| DXE-AT1482 | 0.750" | 0.058" | 6 Foot | $5.70 |
| DXE-AT1483 | 0.875" | 0.058" | 6 Foot | $6.00 |
| DXE-AT1484 | 1.000" | 0.058" | 6 Foot | $6.30 |
| DXE-AT1485 | 1.125" | 0.058" | 6 Foot | $7.00 |
| DXE-AT1486 | 1.250" | 0.058" | 6 Foot | $8.00 |
| DXE-AT1487 | 1.375" | 0.058" | 6 Foot | $8.70 |
| DXE-AT1488 | 1.500" | 0.058" | 6 Foot | $9.50 |
| DXE-AT1489 | 1.625" | 0.058" | 6 Foot | $10.30 |
| DXE-AT1490 | 1.750" | 0.058" | 6 Foot | $11.10 |
| DXE-AT1491 | 1.875" | 0.058" | 6 Foot | $12.00 |
| DXE-AT1492 | 2.000" | 0.058" | 6 Foot | $12.90 |
| DXE-AT1493 | 2.125" | 0.058" | 6 Foot | $13.80 |



**Aluminum Tubing with One End Slit**

| Part Number | OD | Wall | Length | Each |
|---|---|---|---|---|
| DXE-AT1241 | 0.500" | 0.058" | 3 Foot | $4.40 |
| DXE-AT1242 | 0.625" | 0.058" | 3 Foot | $4.70 |
| DXE-AT1243 | 0.750" | 0.058" | 3 Foot | $5.00 |
| DXE-AT1244 | 0.875" | 0.058" | 3 Foot | $5.10 |
| DXE-AT1245 | 1.000" | 0.058" | 3 Foot | $5.25 |
| DXE-AT1246 | 1.125" | 0.058" | 3 Foot | $5.60 |
| DXE-AT1247 | 1.250" | 0.058" | 3 Foot | $6.15 |
| DXE-AT1248 | 1.375" | 0.058" | 3 Foot | $6.45 |
| DXE-AT1249 | 1.500" | 0.058" | 3 Foot | $6.85 |
| DXE-AT1250 | 1.625" | 0.058" | 3 Foot | $7.25 |
| DXE-AT1251 | 1.750" | 0.058" | 3 Foot | $7.70 |
| DXE-AT1252 | 1.875" | 0.058" | 3 Foot | $8.15 |
| DXE-AT1253 | 2.000" | 0.058" | 3 Foot | $8.60 |
| DXE-AT1254 | 2.125" | 0.058" | 3 Foot | $9.05 |
| DXE-AT1205 | 0.500" | 0.058" | 6 Foot | $6.50 |
| DXE-AT1206 | 0.625" | 0.058" | 6 Foot | $7.10 |
| DXE-AT1207 | 0.750" | 0.058" | 6 Foot | $7.70 |
| DXE-AT1208 | 0.875" | 0.058" | 6 Foot | $8.00 |
| DXE-AT1209 | 1.000" | 0.058" | 6 Foot | $8.30 |
| DXE-AT1210 | 1.125" | 0.058" | 6 Foot | $9.00 |
| DXE-AT1211 | 1.250" | 0.058" | 6 Foot | $10.00 |
| DXE-AT1212 | 1.375" | 0.058" | 6 Foot | $10.70 |
| DXE-AT1213 | 1.500" | 0.058" | 6 Foot | $11.50 |
| DXE-AT1214 | 1.625" | 0.058" | 6 Foot | $12.30 |
| DXE-AT1215 | 1.750" | 0.058" | 6 Foot | $13.10 |
| DXE-AT1216 | 1.875" | 0.058" | 6 Foot | $14.00 |
| DXE-AT1217 | 2.000" | 0.058" | 6 Foot | $14.90 |
| DXE-AT1218 | 2.125" | 0.058" | 6 Foot | $15.80 |

**6061-T8 Aluminum Tubing, Heavy Wall, No Slit**
**Ideal for Booms and HD Element Designs.**

| Part Number | OD | Wall | Length | Each |
|---|---|---|---|---|
| DXE-AT1311 | 1.500" | 0.120" | 6 Foot | $25.85 |
| DXE-AT1312 | 1.750" | 0.120" | 6 Foot | $30.20 |
| DXE-AT1313 | 2.000" | 0.120" | 6 Foot | $35.00 |
| DXE-AT1314 | 2.250" | 0.120" | 6 Foot | $39.45 |
| DXE-AT1315 | 2.500" | 0.120" | 6 Foot | $44.50 |
| DXE-AT1316 | 2.750" | 0.120" | 6 Foot | $48.95 |
| DXE-AT1317 | 3.000" | 0.120" | 6 Foot | $53.40 |

12 ft. Bundles Available.

## SS-30™ Pure Copper Anti-Seize Lubricant

Use Jet-Lube on your taps, lugs, aluminum tubing joints, copper grounding straps, clamps, hardware and anywhere you need excellent conductivity.

JTL-12555 Jet-Lube, 0.25 Lb. Brush-Top Can ..... $13.95

JTL-12502 Jet-Lube, 0.50 Lb. Brush-Top Can ..... $26.95

## Adjustable Length Deburring Tool

DXE-22600 Deburring Tool .....$13.95

DXE-22110 Replacement Blades for Aluminum/Steel, Pack of 10.....$12.95

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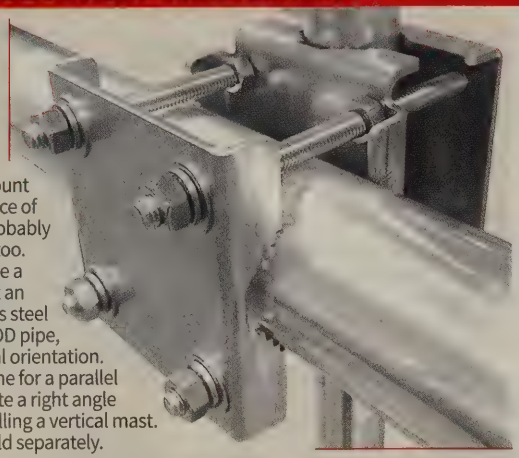


### Genius Clamps

If you've ever struggled to mount a horizontal cross bar to a piece of vertical tubing, then you'd probably call these "Genius!" Clamps, too. They're the ideal way to create a tower standoff to side-mount an extra antenna. These stainless steel clamps are sized for 1" to 2" OD pipe, in both horizontal and vertical orientation. Two versions are available, one for a parallel standoff, and another to create a right angle mount that's perfect for installing a vertical mast. Genius Clamp hardware is sold separately.

| | | |
|---|---|---|
| DXE-SSGC-2P | Genius Clamps, Right Angle, Pair | $59.95 |
| DXE-SSGC-2VP | Genius Clamps, Parallel, Pair | $64.95 |

**Stainless Steel Genius Clamp hardware**

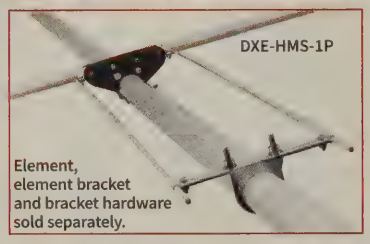
| | | |
|---|---|---|
| DXE-SSGCBOLT-6-5 | 6.5" Bolt Length, 5/16"-18 Thread, Set of 8 | $18.95 |
| DXE-SSGCBOLT-6 | 6" Bolt Length, 5/16"-18 Thread, Set of 8 | $16.45 |
| DXE-SSGCBOLT-5-5 | 5.5" Bolt Length, 5/16"-18 Thread, Set of 8 | $15.95 |
| DXE-SSGCBOLT-4-5 | 4.5" Bolt Length, 5/16"-18 Thread, Set of 8 | $13.45 |
| DXE-SSGCBOLT-5 | 5" Bolt Length, 5/16"-18 Thread, Set of 8 | $14.95 |
| DXE-SSGCBOLT-4 | 4" Bolt Length, 5/16"-18 Thread, Set of 8 | $13.45 |

DX ENGINEERING

### Hairpin-Style Driven Element Matching Kits

Most Yagi antennas have a feedpoint impedance of about 25 Ω. Obviously, this will not allow a connection to a 50 Ω feedline without a serious mismatch.
There are various ways to match the driven element to the feedline successfully. Gamma, T-Match and the Hairpin (aka Beta Match) are favorites.

The Gamma match is an unbalanced system that typically distorts the antenna pattern. The T-Match is basically two Gamma match systems on either side of the boom, which corrects the imbalance but is a mechanical nightmare and difficult to tune correctly.




The DX Engineering Hairpin is balanced and easy to tune. It has the correct electrical and mechanical design to allow it to be easily installed and tuned in 10 minutes, and has enough capacity for almost any Yagi design. Complete your installation with elements, element brackets and bracket hardware, available separately.

**For use with BEB-2 Insulated Boom-to-Element Brackets**

| | | |
|---|---|---|
| DXE-HMS-1P | 2" Boom | $54.95 |

**For use with BEB-3 Insulated Boom-to-Element Brackets and an SEI Split Element Insert**

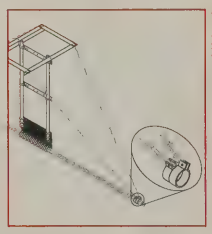
| | | |
|---|---|---|
| DXE-HMS-2P | 1" to 1.75" Boom | $52.95 |

**For use with BEB-1 Insulated Boom-to-Element Brackets**

| | | |
|---|---|---|
| DXE-HMS-4P | 3" Boom | $56.95 |

DX ENGINEERING

### Boom Support Parts



DXE-ATBB-2

As antennas become larger, booms become longer, or the wind speed becomes higher, our 3 inch Boom Support Systems will keep the boom straight. Your antenna will look better, perform better and survive storms in better shape. Many of the individual pieces in these systems are available separately so you can design and build your own support systems.

**2 Inch Boom Support Components**

| | | |
|---|---|---|
| DXE-ATBB-2 | 2" Boom Bracket | $10.95 |

**3 Inch Dual Boom Support System and Components**

| | | |
|---|---|---|
| DXE-ATBB-3 | 3" Boom Bracket | $12.95 |

**Turnbuckles**

DXE-TRBK-14

| | | |
|---|---|---|
| DXE-TRBK-14 | Turnbuckle, 5.25" Retracted, 7.375" Extended | $6.95 |
| DXE-TRBK-15 | Turnbuckle, 6.5" Retracted, 9.125" Extended | $8.95 |

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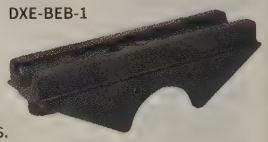
### Insulated Boom-to-Element Brackets

DX Engineering offers insulated boom-to-element brackets to fit 1.75 inch, 2 inch and 3 inch OD booms. The non-metallic brackets electrically insulate the elements from the boom, which virtually nullifies the shortening effect that the boom and the normal metallic boom-to-element plates have on element length. This means the element lengths calculated through antenna design programs like YO, EZNEC and others will correspond more closely to the actual lengths needed. In most cases, the cost of the boom-to-element brackets is less than using a metallic plate and the necessary saddle clamps.

DXE-BEB-1



**DXE-BEB-1 with Gorilla Grip® Boom Clamps**

The DXE-BEB-1 replaces KLM or equivalent boom-to-element brackets. The bracket is also handy for any application where you need to insulate antenna elements. This patented DX Engineering bracket is made from a much stronger material and features a pair of weather-resistant Gorilla Grip stainless steel clamps. It is five times stronger than the original KLM bracket and lets you use up to 1.25 inch OD element tubing. Gorilla Grip® stainless steel boom clamps ensure your antenna elements won't twist or deform in stiff wind. Use the DXE-ELA-1-2 Element Adapters to use a 1 inch diameter element with the DXE-BEB-1.

DX Engineering offers two hardware kits for the BEB-1. The standard kit is a direct KLM hardware replacement with #10 element fasteners. It includes a pair of Gorilla Grip® stainless steel boom clamps, stainless steel bolts, nuts and washers to attach clamps to the DXE-BEB-1, and stainless steel bolts, nuts and washers to attach elements or adapters to the element brackets. The vibration-resistant nuts have nylon inserts. The HWK-2 heavy-duty kit uses 1/4 inch bolts and hardware, so it is considered an upgrade for KLM brackets.

| | | |
|---|---|---|
| DXE-BEB-1 | Insulated Boom-to-Element Bracket, 3" Boom | $49.95 |
| DXE-BEB-1HWK | KLM Direct Replacement Hardware Kit | $26.95 |
| DXE-BEB-1HWK-2 | Hardware Kit with 1/4" Bolts | $31.95 |
| DXE-ELA-1-2 | Element Adapters, 1.25" to 1", for DXE-BEB-1 | $11.95 |

**These brackets are made for 3 inch OD booms only. For 2 inch booms, please use DXE-BEB-2.**

**DXE-BEB-2 with Gorilla Grip® Boom Clamp**

The DXE-BEB-2 is made from an extremely strong, UV-resistant polymer. When bolted to your 2 inch boom using our hardware kit and the included Gorilla Grip boom clamp, it will easily support a split 20M element without a fiberglass centerpiece. It is a budget friendly way to insulate the elements when you're building your next Yagi, LPDA or any boom antenna with a 2" OD boom.

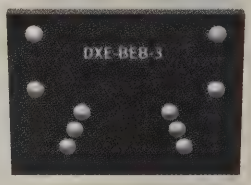
The BEB-2 accepts up to a 7/8 inch element, which is perfect for most 20-6M antennas. Building a large antenna? Use our DXE-BEB-1 Boom-to-Element Bracket.

The DXE-BEB-2 comes in 2 pieces and bolts together with a DXE-BEB-2HWK Stainless Steel Hardware Clamp Kit that also holds it securely to the boom. The hardware kit includes four stainless steel bolts, washers and lock nuts for assembling the bracket. A Gorilla Grip® stainless steel boom clamp is included to attach the element to the bracket. The vibration-resistant nuts have nylon inserts. The DXE-BEB-2HWK Hardware Kit for the DXE-BEB-2 Bracket is sold separately. Larger antennas that experience high winds will require the boom clamp to be pinned to the boom.

| | | |
|---|---|---|
| DXE-BEB-2 | Insulated Boom-to-Element Bracket, 2" Boom | $16.95 |
| DXE-BEB-2HWK | Hardware Kit for DXE-BEB-2 | $19.95 |

**DXE-BEB-3**

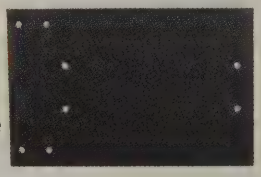
DXE-SEI-1




Great for 6 meter Yagis, the DXE-BEB-3 Insulated Boom-to-Element Bracket is a handy, budget-conscious way to mount elements to smaller (1.25 inch to 1.75 inch) booms. The bracket accepts elements up to 3/4 inches. Use the DXE-SEI-1 Split Element Insulator for 3/4 inch OD aluminum tube for the driven element. The insulator allows the element to be securely clamped without crushing the tube.

| | | |
|---|---|---|
| DXE-BEB-3 | Insulated Boom-to-Element Bracket, 1.25", 1.50" or 1.75" Boom | $4.95 |
| DXE-SEI-1 | Split Element Insulator | $9.95 |

### KX4O Vertical Dipole Antenna Support Plate



When John Huggins, KX4O designed his revolutionary AHVD Vertical Dipole, he probably didn't imagine that it would become so popular. The unusual "upside-down T" design delivers such impressive 20-10M coverage, that it's no surprise operators started building them. Let this plate be the foundation of your build. The weather-resistant 0.25" thick polymer plate measures 11.5" x 7.5" and is pre-drilled for easy assembly.

| | | |
|---|---|---|
| DXE-MMP-KX4O | KX4O Vertical Dipole Support Plate | $13.95 |

## *Yagi Mechanical® Antenna Design Software*

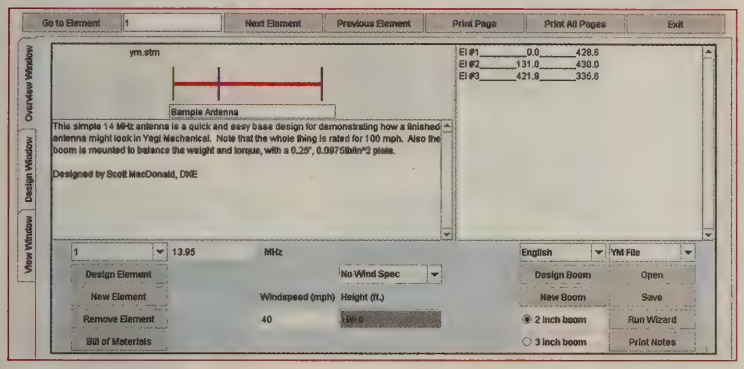
Yagi Mechanical® is a tool for anyone who designs their own antennas or is interested in modeling an antenna they already own. Electrical design is first and foremost in crafting a useful antenna, but the mechanical side of things is also critical. After all, what good is a great performing antenna if the wind is going to break the elements when you put it up on a tower?

DX Engineering's Yagi Mechanical Antenna Design Software enables you to analyze your designs and instantly see where a failure could occur. Whether you use it to find weak points in old designs or to start brand new designs with robust mechanical properties, Yagi Mechanical will provide you with the tools you need to test your elements for wind and ice, to balance weight and torque on the boom, and determine if the materials you have selected are up to the task.

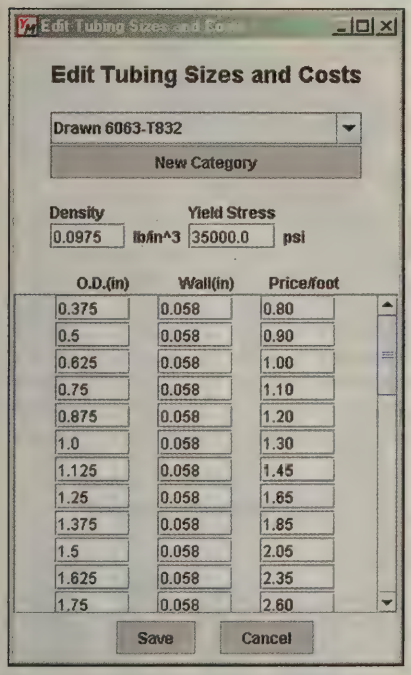
Call it good planning for the kind of stress your antennas are going to see. Call it smart design to prevent regular failures and repairs. Call it peace-of-mind at an affordable price. We call it Yagi Mechanical!

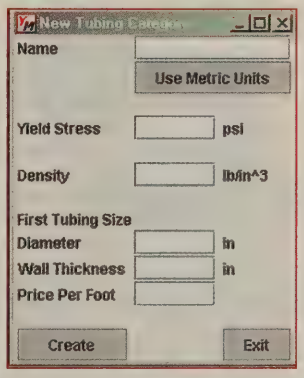
**Yagi Mechanical is a Windows® program, so the graphic user interface should be very familiar.**

| | | |
|---|---|---|
| DXE-SOF-YAGIMECH | Yagi Mechanical® Antenna Design Software w/Key | **$39.95** |
| DXE-SOF-YMKEY | Yagi Mechanical® Key Code Only | **$39.95** |
| DXE-SOF-YMDISC | Yagi Mechanical® Backup CD Only | **$20.95** |




Create and analyze mechanical design parameters.




### *FREE trial version at DXEngineering.com*

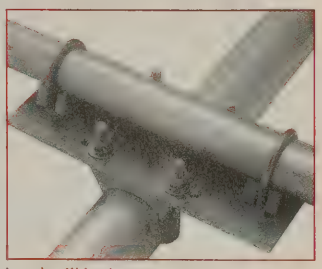
If you are interested in Yagi Mechanical, you can download a trial version FREE! The save, print, and update functions are disabled, but the rest of the program is fully functional, allowing you to try everything before you buy.

**Easy International Ordering.** DXEngineering.com has a simple shipping calculator that can give you an exact price total before you check out.

No matter what country you're in, we can get you the parts and gear you need to get on the air. Same-day shipping means you'll get it quickly, too.

DX ENGINEERING

DXE-BEP-4B



### *Boom-to-Element Plates*

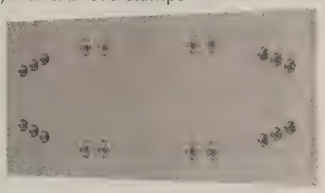
Boom-to-element plates are similar in function to insulated boom-to-element brackets, in that they each attach the elements to the boom. The primary advantage of plates over brackets is that it is a simple mechanical arrangement. The main disadvantage is that the plate does not insulate the element from the boom, which means that the element dimensions that you bring from your antenna design program (YO, AO, EZNEC and others) will be incorrect unless you make some length adjustment for the width of the plate and boom.

**DXE-BEP-4B**

Fabricated from alloy 6061-T6 aluminum, the DXE-BEP-4B is primarily for the smaller 6 meter, 12-10 meter and 17-15 meter beam. This plate can also be used to mount smaller VHF/UHF antennas to a mast using appropriate clamps. The dimensions of the DXE-BEP-4B are 8 inch L x 3.5 inch W x 0.25 inch T. This plate comes pre-drilled for DX Engineering Saddle Clamps.

- For mounting a 2 inch boom use (2) DXE-SAD-200A Clamps
- For mounting a 1.50 inch boom use (2) DXE-SAD-150A Clamps
- For mounting a 1.25 inch grounded element use (2) DXE-SAD-125A Clamps
- For mounting a 1 inch grounded element use (2) DXE-SAD-100 Clamps
- For mounting a 3/4 inch grounded element use (2) DXE-SAD-075 Clamps

**DXE-BEP-5B**



DXE-BEP-5B

Fabricated from alloy 6061-T6 aluminum, the DXE-BEP-5B is for the larger 17-15 meter and 20 meter beams. This plate can also be used to mount smaller VHF/UHF antennas to a mast using appropriate clamps. The dimensions of the DXE-BEP-5B are 8 inch L x 3.5 inch W x 0.25 inch T. The plate comes pre-drilled for DX Engineering saddle clamps.

- For mounting a 3 inch boom use (2) DXE-SAD-300A Clamps
- For mounting a 2 inch boom use (2) DXE-SAD-200A Clamps
- For mounting a 1.50 inch grounded element use (2) DXE-SAD-150A Clamps
- For mounting a 1.25 inch grounded element use (2) DXE-SAD-125A Clamps
- For mounting a 1 inch grounded element use (2) DXE-SAD-100 Clamps

| | | |
|---|---|---|
| DXE-BEP-4B | Boom-to-Element Plate, 1.5" or 2" booms | **$19.45** |
| DXE-BEP-5B | Boom-to-Element Plate, 2" or 3" booms | **$20.45** |

DX ENGINEERING

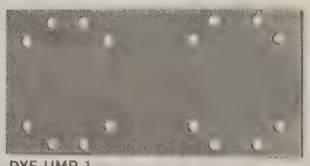
### *Pre-Drilled Boom-to-Mast Mounting Plate*

DX Engineering BMP-2B Boom-to-Mast Plates keep your Yagi stable and properly secured on the mast. Fabricated from 0.250 in. thick 6061-T651 aluminum, BMP-2B plates come pre-drilled for DX Engineering Saddle Clamps for greater clamping power without crushing the tubing.

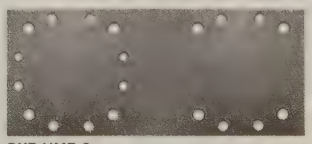
| | | |
|---|---|---|
| DXE-BMP-2B | Plate for 1.5", 2", 3" Mast and Boom, Pre-Drilled, 8" W x 10" L | **$34.75** |

DX ENGINEERING

### *Multi-Purpose Mounting Plates*



DXE-UMP-1



DXE-UMP-2

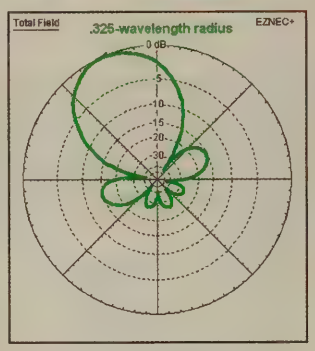
These universal mounting plates can be used for many applications. They are available in aluminum or non-conductive black polymer and come blank or pre-drilled to accept our standard DXE-CAVS-1P V-Saddle Clamps, which can accommodate tubing or pipe from 1/2 inch to 1.75 inch OD.

If you are looking for larger sizes, one of our Boom-to-Mast Plates may work. They are available for 1.75 inch, 2 inch and 3 inch OD tubing or pipe. Visit DXEngineering.com for the clamps recommended for use with each specific plate.

| | | |
|---|---|---|
| DXE-UMP-1 | Universal Mounting Plate for 1.75" Saddle Clamp | **$17.95** |
| DXE-UMP-2 | Universal Mounting Plate for 2" Saddle Clamp | **$17.95** |
| DXE-MMP-P2 | Non-Conductive Blank Polymer Plate, 1/4" x 7.5" x 11.5" | **$7.45** |
| DXE-MMP-P3 | Non-Conductive Blank Polymer Plate, 1/4" x 7.5" x 16" | **$9.95** |

DX ENGINEERING

DXE-RCA8C-SYS-4P




## Receive 8 Circle Packages

DX Engineering Receive 8 Circle Arrays are designed to be used with eight identical, symmetrically-spaced vertical elements—active or passive—to provide switching for an eight-direction receiving antenna system. (Passive elements will generally provide you with a monoband receiving system).

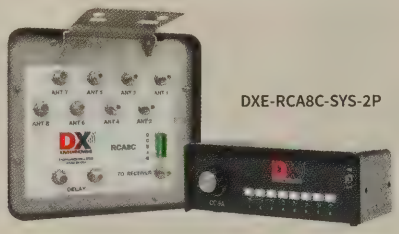
The Receive 8 Circle system uses time-delay phasing (rather than conventional narrow-band, frequency dependent phasing) to provide eight 45 degree-spaced directional patterns. The time-delay phasing is directivity-optimized to produce wider and deeper rear nulls and a narrower main lobe. The result is greatly reduced noise and undesirable signals for a superior front-to-rear ratio (F/R). Better control of phase and currents provides a cleaner pattern than found on vertical antenna transmit arrays.

The system also offers greater reliability in receiving applications. The RC8 controller uses sealed relays—sized for receiving applications—with oxidation-resistant silver contacts. Most transmitting four-square switches use large open-frame relays with exposed brass contacts, which can lead to contamination, oxidation and poor conductivity.

**The DXE-RCA8B-SYS-4P Complete Electronics Package Includes everything from DXE-RCA8-SYS-2P, plus:**

- DXE-ARAV3-8P Active Receive Antenna Array Package (see below)
- Two DXE-F6-1000 F6 flooded coax cable, 75 Ω (1,000' each)
- DXE-CPT-659 Coax Cable Prep Tool
- DXE-SNS-CT1 Snap-N-Seal® crimp tool for 75 Ω coax
- DXE-SNS6-25 Snap-N-Seal® connectors for F6 coax, 25 pieces

DXE-RCA8C-SYS-4P Receive 8 Circle Complete System Package ..... **$3,105.60**



DXE-RCA8C-SYS-2P

**The DXE-RCA8B-SYS-2P Controller and Switch Package includes:**

- DXE-RC8B-1 Receive 8 Circle Array Controller
- DXE-EC-RCA8 Receive 8 Circle BCD Control Console
- DXE-SSVC-2P Stainless Steel V-Clamp for mounting the RC8B to a 1-2" OD post

DXE-RCA8C-SYS-2P Receive 8 Circle Controller and Switch Package ..... **$629.90**

**Control Cable**

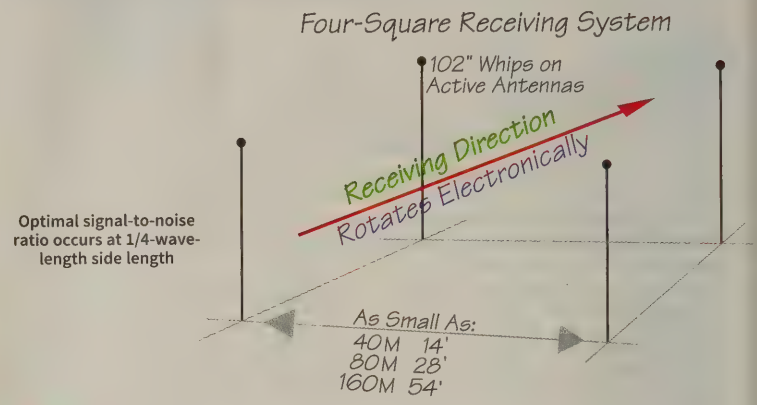
COM-CW4 Cable, 4-Conductor ..... per foot **$0.45**

COM-CW4-500 Cable, 4-Conductor, 500' Spool ..... **$165.95**

## Complete Electronically Steered Receiving System

- More than 5 S-units of front-to-back on optimized systems
- Works best on 160M, 80M and 40M
- Like having a rotatable Beverage antenna
- Fits in YOUR yard!
- Easily installed—no radials required

**Want to know what people are saying about this system? Visit: www.eham.net/reviews/detail/5336**




DX ENGINEERING

DXE-RFS-SYS-4P Complete Package

DXE-RFS-SYS-3P

## Receive Four-Square System

- W8JI design
- Switchable in four 90 degree spaced directions
- Reduced susceptibility to high angle signals compared to EWE, Flag, Pennant or K9AY arrays
- Excellent directivity in a small space for better signal-to-noise ratio
- Operates from 100 kHz to 30 MHz
- Each complete system package includes four active vertical antennas, RFS-2 switch, EC-4 controller, 1,000 feet of 75 Ω F6 flooded cable, F connectors and tools
- TVSU-1B Time Variable Sequence Unit included to protect active antennas installed as close as 1/10-wavelength from transmitting antenna

DXE-RFS-SYS-4P Receive Four-Square System Complete Package ..... **$1,932.60**

DXE-RFS-SYS-2P Four-Square Controller and Switch Package ..... **$404.90**

**System components also available individually.**

DXE-EC-4 Four-Square Controller, 4-Position BCD Output ..... **$124.95**

DXE-TVSU-1B Time Variable Sequence Unit ..... **$219.95**

DXE-CPT-659 Coaxial Cable Stripping Tool ..... **$29.95**

DXE-SNS-CT1 Snap-N-Seal® Compression Tool ..... **$39.95**

DXE-WP-102 Whip Antenna, 8.5' Stainless Steel ..... **$24.95**

DXE-SNS6-25 Snap-N-Seal® Coaxial Connectors ..... **$29.95**

DX ENGINEERING

## Active Receive 8 Antenna Package

The DX Engineering Active Receive Antenna Array Package contains eight DXE-ARAV3-1P Active Receive Antennas. They offer excellent receiving performance from 100 kHz to 30 MHz while using only 102" whips as the vertical elements. This results in significantly better weak signal reception due to lower spurious signal interference and reduced noise. The package also includes mounting blocks, wiring and mounting clamps.

DXE-ARAV3-8P Active Receive 8 Antenna Package .... **$2,015.95**

DX ENGINEERING

### Receiver Guard RG5000HD

Protect your sensitive receiver front-end against high levels of RF from nearby transmit signals. A DX Engineering Receiver Guard is the best limiter device to choose if your receive antenna input could be subjected to high levels of RF. They are a must for contesting stations and are useful for all stations, for Field Day, SWLs and when a neighbor or passing mobile generates potentially damaging RF peaks.

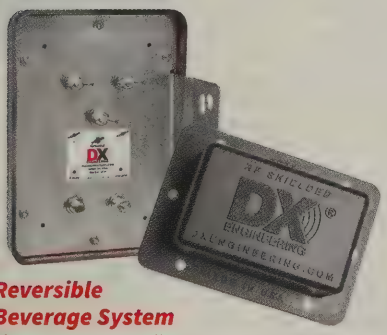
Extensively tested and proven in real-world stations, the RG5000HD works for all radios and offers the ultimate performance required by the upper tier of transceivers tested to have the best narrow-spaced third-order dynamic range or published RMDR (Reciprocal Mixing Dynamic Range). These transceivers include Elecraft K3 series, FlexRadio 6700, 5000A and 3000, Icom IC-7851, Kenwood TS-990S and 590S(G), TenTec Orion series, Yaesu FTDX-5000 series, and other radios with similar performance.

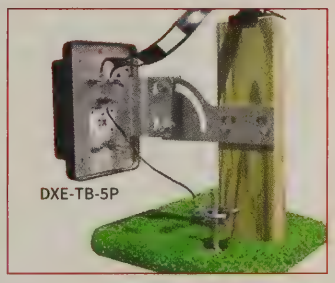
At the heart of the Receiver Guard is a highly effective electronic RF limiter covering 500 kHz to 150 MHz with an insertion loss under 0.15 dB at 50 MHz and under 0.3 dB to 150 MHz. Its multi-stage design includes a gas discharge tube for maximum pulse energy protection. The RG5000HD is a passive electronic limiter, not a filter, so competitive contesting stations still use separate band filters. The Receiver Guard's limiters can reject 10 watts of catastrophic receive antenna feedline RF while passing a signal of about 87 dB over S-9, which is only 25 mw! That level is well under the point of front-end damage.

When there are high levels of RF on your receive antennas, DX Engineering's RG5000HD generates far less harmonic noise than other limiters on the market, which allows your station to continue to operate safely and competitively. At normal HF signal levels the Receiver Guard operates continuously with no effect on the performance of your station while providing the best possible protection for your radio.

The RG5000HD-PM variant is a Plug-In Module version of the Receiver Guard HD, allowing it to be installed in one of the expansion slots of our NCC-2 and RTR-2 units.

DXE-RG5000HD Receiver Guard RG5000HD ..... **$89.95**
DXE-RG5000HD-PM Receiver Guard RG5000HD Plug-In Module ..... **$74.95**




DXE-TB-5P

### Reversible Beverage System

The DXE-RBSA-1P allows two Beverage antennas receiving in opposing directions to share the same space. With the DXE-RBSA-1P, you can build a 2-wire reversible Beverage antenna system with superior signal-to-noise ratio, most useful at 160, 80 and 40M bands. The W8JI design consists of a Feedpoint System and Reflection Transformer. You can operate and even confirm the F/R ratio of this antenna at any time from the operating position.

This system is immune to strong signal overload and core saturation common in multi-transmitter contesting environments, and is used by winning contest stations and low-band DXers.

The DXE-RBSA-1P has two antenna ports. The standard configuration of the DXE-RBSA-1P has one port terminated (termination included) so both antennas share a common feedline. Applying 10 to 18 Vdc to the feedline switches between the antenna, and the direction of reception. For simultaneous reception from opposing directions, each of the two feedlines connect to a separate receiver.

While the DXE-RBSA-1P is optimized to use 450 Ω ladder line for the antenna element, the system will work with any 300-600 Ω 2-wire line. 450 Ω ladder line is available from DX Engineering, sold separately. DX Engineering also sells quality 75 Ω coax and F connectors for outdoor installations.

**Benefits**

- Broad operating range, 0.2 to 30 MHz
- Fully isolated grounds used to prevent common-mode noise and unwanted signals
- 75 Ω design enables the use of high quality, low cost cable with F connectors
- Metal housings used for superior shielding and improved life

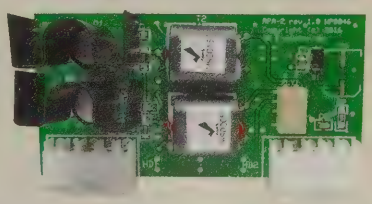
DXE-RBSA-1P Reversible Beverage Feed System ..... **$244.95**
DXE-TB-5P Tilt Base for DXE-RBSA-1P ..... **$21.95**

DX ENGINEERING

DXE-RPA-2

### RPA-2 Modular Receive Preamplifiers

We've completely redesigned some of our most popular products to make them easier to use. This newest version of our RPA series preamplifier boasts the same industry leading performance as the previous version. The key improvement here is its internal expansion slot that allows you to add one of our new plug-in modules, like the Receiver Guard or the 75 to 50 Ω impedance transformer. This new unit also features BNC and F connectors to ensure a reliable, 50 Ω connection.


DXE-RPA-2-PM

These low noise preamps are optimized for the 300 kHz to 35 MHz range, letting you hear the weakest signals without artificially raising the noise. The use of robust components allow these preamplifiers to withstand high signal levels while providing superior dynamic range and third-order intercept performance that equals or exceeds most transceiver front-ends. RPA-2 Modular Receive Preamplifiers include our exclusive, advanced push-pull design that eliminates harmonic distortion. Their high quiescent current increases their ability to handle strong signals without distortion or overload.

To ensure you get the highest performance and reliability out of your RPA-2, we highly recommend using a well filterered, regulated 13.8 Vdc power supply.

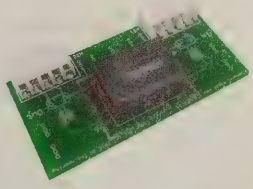
**RPA-2 Series Specifications**

- Gain: 16 dB, +/- 1.5 dB over entire frequency range
- Output Third Order Intercept: 43 dBm
- Noise Figure: 3.5 dB
- One dB Compression Point: +26 dBm (400 mW output)
- Dynamic Range, IM3: 110 dB or greater (500 kHz BW)

The RPA-2-PM is a Plug-In Module version of the same unit, allowing it to be installed in one of the expansion slots of our NCC-2 and RTR-2 units.

DXE-RPA-2 Modular Receiver Preamplifier ..... **$148.95**
DXE-RPA-2-PM Receive Preamplifier Plug-In Module ..... **$95.95**

DX ENGINEERING



### 75 to 50 Ω Impedance Plug-In Module

The DX Engineering RPA-2, RTR-2 and NCC-2 units accept 50 Ω input impedances. This handy PCB card plugs into your RPA-2, RTR-2 or NCC-2 and allows them to accept a 75 Ω receive antenna feedline.

DXE-IT-PM 75 to 50 Ω Impedance Plug-In Module ..... **$29.95**

### 2-Port Receiving Antenna Switch

Select one of two output ports (generally connected to different receiving antennas) from one feedline using the DXE-RLS-2. Install the DXE-RLS-2 with two DXE-RBS-1P Reversible Beverage Antenna Systems and select four directions using a single main feedline. Install one or more DXE-RLS-2 switches to expand larger Beverage arrays and share the feedline back to the operating position.

Applying a nominal 12 Vac or DC control voltage through the feedline activates transfer to port 2. Use DX Engineering's DXE-FVC-1 Voltage Coupler to supply the control voltage through the feedline.

**Benefits**

- Metal housings used for superior shielding and improved life
- High-quality components
- Reliable CATV F connectors standard
- Broad 0.3 to 30 MHz operating range with 75 Ω systems
- Jumper-selectable—control voltage pass-through to the selected port

DXE-RLS-2 Receiving Antenna Switch ..... **$89.95**

### Feedpoint Voltage Coupler

- Inject control voltages onto feedline
- Injects +/- 12 Vdc or 12 Vac
- For use with DXE-RBS-1P Reversible Beverage System or Remote 2-Position Switch DXE-RLS-2
- 120 Vac supply included

DXE-FVC-1 Feedpoint Voltage Coupler ..... **$99.95**

DX ENGINEERING

### RTR-2 Modular Receive-Transmit Interface

The new RTR-2 is the safest solution for adding a separate receive antenna to a transceiver that doesn't have a dedicated receive antenna port. This fast receive-transmit relay switches between antennas without worry. It has a unique failsafe keying input plus a new amplifier key out. Sharing main antenna with SDR receiver/display using optional external splitter is easy, or use it as a T/R switch for boat anchors. More new RTR-2 features include Bias-Tee for active vertical or magnetic loop antennas plus this unit operates on 12-21 Vdc; three internal slots for new plug-ins; impedance transformer (for 75 Ω feedlines), Receiver Guard and Receive Preamplifier modules, front panel switch for preamp in/out, 50 Ω, BNCs and SO-239s, 200W, 1.8 to 54 MHz.

Owners of Kenwood radios have previously been unable to use either the RTR-1 or RTR-2 because of interface problems. We've remedied that issue with our new KWD-RTR keying cable. Check your Kenwood's compatibility at DXEngineering.com.

| | | |
|---|---|---|
| DXE-RTR-2 | Modular Receive-Transmit Interface | $229.95 |
| DXE-KWD-RTR | Special Kenwood/RTR Keying Cable | $35.00 |
| DXE-RG5000HD-PM | Receiver Guard 5000 HD Plug-In Module | $74.95 |
| DXE-IT-PM | 75 to 50 Ohm Impedance Transformer Plug-In Module | $29.95 |
| DXE-RPA-2-PM | Receive Preamplifier Plug-In Module | $95.95 |

### Receive Feedline Current Choke

The Receive Feedline Current Choke (RFCC) is the most effective solution to common-mode noise or unwanted signal ingress in receiving systems available. It provides thousands of ohms isolation between the input and output coaxial shield connections while passing desired signals, including DC or low frequency AC control signals. The RFCC has extremely high isolation impedance, which effectively blocks common-mode noise or unwanted signals, even in the presence of very poor grounding. The RFCC is effective from 300 kHz to 30 MHz. It comes with standard type F female connectors, although it can be used in any 50 to 75 Ω receiving system.

| | | |
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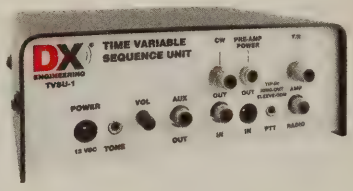
| DXE-RFCC-1 | Receive Feedline Current Choke, 50/75 Ω, 0.3-30 MHz | $78.95 |

### Time Variable Sequence Unit




Protect your active antennas, transmit/receive relays and other equipment with this sequence unit. You get full control of the timing between your radio and your amplifier. This microprocessor-controlled unit provides 0-30 milliseconds of delay, in 2 millisecond increments to as many as 5 outputs tied to your key, in-line.

Plus, the DXE-TVSU-1B has a built-in side tone generator for CW. Which means you can listen to what you're keying while it's being held in the bucket brigade delay for transmit after the programmed delay. This side tone is adjustable from 300 to 1000 Hz in 50 Hz steps. The unit supports full break-in CW and requires 13.8 Vdc. It also allows you to use DX Engineering's Active Receive Antennas in close proximity to your transmit antennas.

| | | |
|---|---|---|
| DXE-TVSU-1B | Time Variable Sequence Unit | $219.95 |

### Single Direction Beverage Feed System

The DXE-BFS-1 is a single-wire Beverage Feed System. This W8JI design is immune to strong signal overload and core saturation common in multi-transmitter contesting environments, and is used by winning contest stations and low-band DXers. The unit uses an isolated-winding, matching transformer system to significantly increase the signal-to-noise ratio in Beverage and other high impedance antennas.

The DXE-BFS-1 works with antenna impedances from 400-500 Ω. Included with the DXE-BFS-1 is a 470 Ω, 2 watt non-inductive resistor that withstands nearby lightning strikes significantly better than hard-to-find carbon composition resistors.

Feedline impedance on the DXE-BFS-1 is designed for 75 Ω, although it will work with 50 Ω coax. The DXE-BFS-1 uses an industry standard CATV F connector. DX Engineering sells quality 75 Ω coax and F connectors for outdoor installations.

**Benefits**

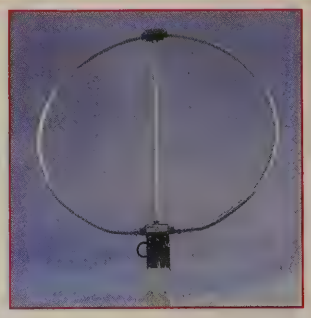
DXE-BFS-1

- 100 kHz to 30 MHz operating range
- Spark gaps minimize damage from lightning
- Wing nut terminals eliminate soldering
- Metal housings used for superior shielding and improved life
- Flange-mount holes for easy mounting
- Ground isolated secondary essential for building Beverage arrays

| | | |
|---|---|---|
| DXE-BFS-1 | Beverage Feed System, with One Resistor | $54.95 |
| DXE-ECM-R470-2 | 470 Ω, 2 Watt Resistor, Lightning Damage-Resistant, Pack of 10 | $23.95 |

DX ENGINEERING

### Active Magnetic Loop MF/HF Receiving Antenna



The well-known RF-PRO-1B® is now manufactured and sold exclusively by DX Engineering. This original Pixel loop design incorporates a high performance Norton preamplifier designed by Clifton Laboratories' engineer Jack Smith, K8ZOA with excellent broadband reception from 50 kHz to 30 MHz. Installation is easy, because it's only 38 inches in diameter. When rotated, this antenna provides deep nulls for effective reduction of directional noise and interfering signals. Ideal for Amateurs, SWLs and AM DXers, this loop also offers up to 30 dB rejection of electrostatic field noise. This receive only antenna cannot be connected to a transmitter RF output.

- Rejects power line noise
- Rugged construction, easily mounts to a pole or flat vertical surface
- No manual tuning necessary
- Low profile design works at ground level
- Modular construction for easy installation and maintenance

| | | |
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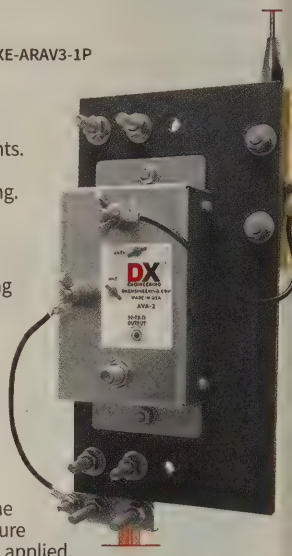
| DXE-RF-PRO-1B | Active Magnetic Loop Antenna | $499.99 |

DX ENGINEERING

DXE-ARAV3-1P

### Active Receive Antenna Systems



DX Engineering's Active Receive Antenna Systems offer excellent receiving performance using 102" whip elements. The unique design is vastly superior to traditional active antennas in both signal handling and feedline decoupling. You get significantly better weak signal reception.

Available in ground mount vertical or horizontal dipole for elevated installations, these systems include a non-conductive mounting plate, clamps, active matching system, and the 102" stainless steel whip elements. The horizontal dipole element uses two 102" whips for an overall length of 210"; the vertical configuration uses a single whip. Whip antennas have excellent wind survival and are very inconspicuous.

When space is limited, use the DXE-ARAV3-1P or DXE-ARAH3-1P in conjunction with the DXE-TVSU-1A to provide for operation within 1/10-wavelength of a transmit antenna. The active antennas have relay protection to prevent overload of the transmit signal. The DXE-TVSU-1A sequencer controls switching times to ensure the receive system is protected before transmit power is applied. Use the DXE-ARAV3-4P, DXE-TVSU-1A and DXE-RFS-2 to provide four-square operation within 1/10-wavelength of a transmit antenna.

The vertical configuration can be used as a single element or in combination with DX Engineering's RFS-2 Receive Four-Square Antenna System to build a broadband directional array that can be switched in four directions to peak the signal or null out noise. Vertical configurations are for suburban or rural locations with low levels of ground wave propagated noise. The dipole configuration makes a very sensitive, horizontally polarized receiving antenna. Horizontal polarization can greatly reduce ground wave propagated noise in congested urban environments. Light weight and low wind resistance reduces support requirements. The output connector is a Type F, allowing use of readily available high performance CATV feedlines and connectors .

- Sensitive—weak signal sensitivity rivaling full size antennas
- Wide frequency coverage—100 kHz to 30 MHz
- Excellent strong signal handling—outstanding third order intercept of +30 dBm
- Reduced noise—quiet FET followers and high feedline shield isolation
- Easy mounting and installation—pre-drilled mounting plate and universal clamps

| | | |
|---|---|---|
| DXE-ARAV3-1P | Active Receive Antenna, Vertical Configuration | $299.95 |
| DXE-ARAH3-1P | Active Receive Antenna, Horizontal Configuration | $384.95 |

### Splitter/Combiner

Use this to combine two receiving antennas to form an array or to split the signal from an antenna to feed two receivers. The DXE-RCS-2 also reduces problems and performance shortfalls caused by impedance errors in less-than-perfect antenna systems. This unit has a broad, 0.3 to 30 MHz range and features spark gaps to lessen damage from lightning strikes.

**Combining**

- Matches the entire antenna system to cable impedance
- Wide bandwidth
- Built-in isolation and balancing
- Very high isolation between ports 1 and 2

**Splitting**

- Typical signal level reduction just over 3 dB per port
- Provides equal power, voltage and current to matched loads on ports 1 and 2
- The individual receiver will not seriously affect the signal level of the other

| | | |
|---|---|---|
| DXE-RSC-2 | 2-Port Splitter and Combiner | $71.95 |

DX ENGINEERING

## NCC-2 Receive Antenna Phasing System

The NCC-2 allows you to phase one receive antenna with a transmit antenna or two receive antennas with each other. That means you can use the NCC-2's phasing and balance controls to electronically "rotate" an antenna pattern, steering the pattern null(s) to reduce interference, so you'll enjoy improved reception and signal-to-noise ratio. Even if you have space constraints on your property, you can enjoy the benefits of antenna phasing and noise-nulling.

This new unit is completely redesigned with improved phase and balance capability, giving you better control over the variations in signal levels from different antennas. A built-in Receive-Transmit Interface relay system allows direct transceiver connection.

The NCC-2 has four advantages over typical phased antenna systems. First, the array can be electronically steered or directed using physically stationary antennas. Second, the user adjusts the direction and wave angle of either a null or peak. Third, the response can change from a signal null to a perfect signal peak with the flip of a single switch. Lastly, front panel adjustments compensate for less-than-ideal antenna installations, making a directional array possible in most situations.

But the really big news about the NCC-2 Receive Antenna Phasing System is expandability. It features new internal slots for installing optional DX Engineering Plug-in Modules, like the new RPA Receive Preamplifier, Receiver Guard 5000HD and 75 to 50 ohm Impedance Transformer.

NCC-2 features and quick specs:

- Nulls out noise from power lines, lamp dimmers, motors, and other electronics
- Phasing voltage controlled, allowing for precise resetting of phase
- Built-in, 2-channel voltage controlled attenuator system
- Low noise, high dynamic range amplifiers
- Separate control for reversing phase
- New key line out RCA connector for amplifier
- Capable of up to 21+ Vdc input
- Rear panel SO-239, F and BNC connectors
- Frequency range: 300 kHz to 30 MHz
- Third order output intercept (TOI): +32 dBm each input/+38 dBm combined
- Gain flatness: +/- 1 dB over complete phase rotation gain
- Attenuation adjustable from 0 dB to -40 dB
- Available phase rotation: >360 degrees between 300 kHz and 30 MHz
- Input power: NCC-2 +13.8 to 21 Vdc nominal @ 2A maximum
- Antenna feedline power: 13.8 to 21 Vdc @ 300 mA maximum

| | | |
|---|---|---|
| DXE-NCC-2 | Receive Antenna Variable Phasing System | $749.95 |
| DXE-KWD-RTR | Special Kenwood/NCC Keying Cable | $35.00 |

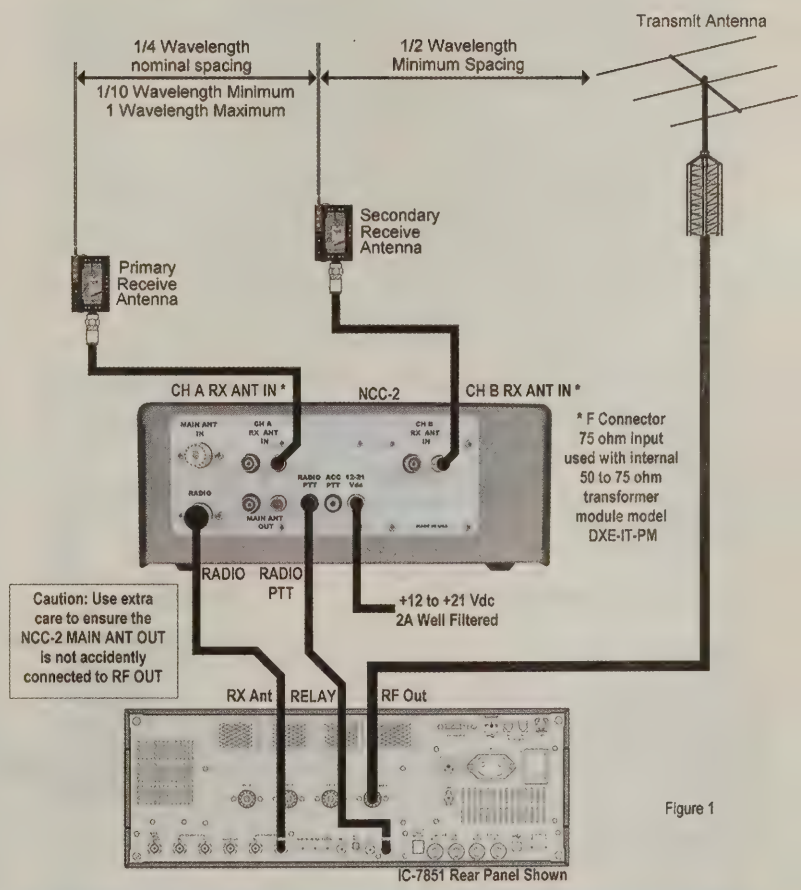



Figure 1

## NCC-2 Receive Filters Coming Soon

Upgrade your new NCC-2 with band specific directional noise and signal nulling performance. By reducing or excluding frequency specific signals that normally cause interference, these filters help lower the noise floor of the desired pass-band to dramatically improve reception. They will be available for the 160-10 meter bands, and come in low pass, band pass and high pass frequency ranges. Though they weren't completed at the time of this catalog's printing, you can check availability now at DXEngineering.com.

Overview | Documentation | Suggested Parts | Related Kit/Combos | Show All

**Related Products:** Parts that may improve the performance or installation of part number DXE-NCC-2

**5 Results Found**

**Narrow Your Results**

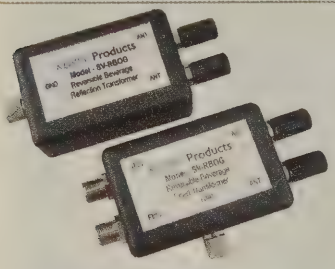
## Suggested Parts

Sometimes Ham Radio gear requires special accessories like hookup cables and brackets to complete an installation. Visit DXEngineering.com and check out the "Suggested Parts" tab on certain products to see what you'll need to get up and running.

## KD9SV Products — Exclusively from DX Engineering

### Get the Most from Your Low Band Receive System

Since the development of his groundbreaking 160 meter preamplifier in 1987, and ever since Gary Nichols, KD9SV, has been on a quest to create the best "Gentleman's Band" gear on the planet. To see the full product descriptions visit DXEngineering.com.



SVP-SV-RBOG

SVP-SV-PP160RBOG

## KD9SV Products — Reversible Beverage-On-Ground Antenna Systems

Also know as an RBOG, these systems use a TWO conductor insulated wire placed onto or slightly in the ground. The effects of the Earth allow 160 meter reception to be optimized using only 160' to 200' wire length.

RBOGs exhibit very low noise and low signal level reception, with very good signal to noise ratios. Plus, they require far less real estate for installation than above ground Beverage antennas and they require no supports.

**RBOG Reversible Beverage-On-Ground Antenna Transformers**

These RBOG Transformers are sealed feedpoint and reflection units built with stainless steel hardware and isolated-ground connections. RBOG transformers are easily installed with twisted military phone wire, the same as the KD9SV Two-Direction Beverage antenna. Each transformer is connected to independent ground rods. The feedpoint transformer has two F connectors for 75 Ω coaxial cables that run to the station.

SVP-SV-RBOG — RBOG Antenna Transformers ..... **$139.95**

**RBOG Reversible Beverage-On-Ground Preamp and Directional Controls**

Here is the introduction of KD9SV Products' new desktop units that include the new Top Band pHMET FET Preamplifiers as well as a handy Directional Control system. They provide the required two antenna connectors and one output connector, plus a front panel switch to change direction of reception on your KD9SV RBOG Reversible Beverage-On-Ground Antenna System (or other two-direction Beverage antenna).

A built-in bypass relay allows the connected receiving antenna to be used on other bands. These units feature the same Top Band pHMET FET enhanced-gain ultra-low noise Preamplifiers developed by KD9SV for the requirements of single direction Beverage on Ground antennas (BOGs). When used with KD9SV Products' SVP-SV-RBOG Reversible Beverage-On-Ground Antenna Transformers, these preamplifier and directional switch units will help you receive 160 meter weak signals with far less noise, taking advantage of the extraordinary signal-to-noise ratios offered by BOG antennas.

SVP-SV-PP160RBOG — RBOG Preamp/Directional Control ..... **$149.95**

**KD9SV Products RBOG Reversible Beverage-On-Ground Combos**

This combination includes both of the products described above: the KD9SV Products RBOG Transformers and the KD9SV RBOG Preamp and Directional Control.

SVP-SV-RBOG-PP-P — RBOG Transformers/Control Combo ..... **$279.95**

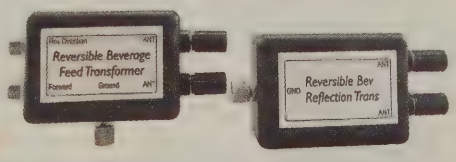
**See Beverage-On-Ground Antenna Wire below.**

## KD9SV Products — Beverage-On-Ground Antenna Wire

KD9SV makes this antenna wire specifically for its Beverage-On-Ground Systems. As a superior alternative to old military surplus cable, this wire consists of a non-twisted, insulated, flexible pair of 20 AWG conductors. The wire is also an excellent choice for hooking up your remote controls and sensors.

SVP-SV-RBOGANTW — Beverage-On-Ground Antenna Wire, 200' Spool ..... **$45.95**
SVP-SV-RBANTW5C — Beverage-On-Ground Antenna Wire, 500' Spool ..... **$115.95**
SVP-SV-RBANTW1K — Beverage-On-Ground Antenna Wire, 1,000' Spool ..... **$185.95**

## KD9SV Products




### Two-Direction Beverage Antenna System

Finally hear that distant DX with this excellent low-noise Beverage wire antenna. The kit includes two optimized transformers (feed/reflection) and can be hooked up easily with standard twisted-pair element cable as the beverage wire antenna. This receive antenna kit is the perfect solution for operators who want to "roll out" their antenna seasonally and store it out of the way when not in use.

SVP-SV-RB — Two-Direction Beverage Antenna System Kit ..... **$129.95**

## KD9SV Products — Beverage Antenna Matching Transformers

Now available in 4:1 and 9:1 ratios, these Beverage Antenna Matching Transformers are designed to vastly improve your receive system. KD9SV has recently upgraded these famous designs to include stainless steel hardware, isolated-ground connections and F connectors. These upgrades improve performance and help the units better withstand the elements.

The transformers are potted to prevent moisture ingress and are compatible with 50 Ω or 75 Ω cable.

SVP-SV-BT — 9:1 Beverage Antenna Transformer ..... **$32.95**
SVP-SV-BT-PLUS — 9:1 Transformer with Common-Mode Choke ..... **$49.95**
SVP-SV-BOG — 4:1 Beverage On Ground Transformer ..... **$32.95**

## KD9SV Products — 160/80 Meter and 160 Meter BF981 Preamplifiers

SVP-SV-160

These preamps provide enhanced reception of weak 160 and 80 meter signals in a low noise FET redesign. BF981 Variable Gain Preamps achieve a noise figure of only 0.7 dB.

Optimized with dual-band or monoband tuned input and output filtering, they keep out unwanted broadcast stations, with about 45 dB rejection performance at 1 MHz. The preamps feature a front panel 10-28 dB gain control with a CCW-off preamp bypass switch on the dual-band model and toggle switch bypass on the 160 meter model. BF981 preamps are perfect for operations on receiving loops, pennants, flags, Beverages and active arrays that offer significant signal-to-noise benefits at low signal output.

SVP-SV-DB — 160/80 Meter BF981 Dual-Band Preamp ..... **$169.95**
SVP-SV-160 — 160 Meter BF981 Monoband Preamp ..... **$91.95**

## KD9SV Products

SVP-SV-RSC F Connectors — SVP-SV-RSC-50 BNC Connectors

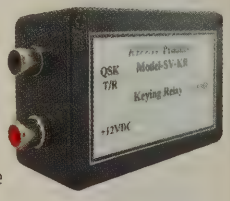
### Magic "T" Splitter/Combiners

As a splitter, you can use this to connect one receive antenna to two radios or, in a combiner role, you can phase two receive antennas into one radio. It covers 500 kHz to 10 MHz and insertion loss is around 3 dB per port as a splitter or less than 0.1 dB as a combiner. The RSC-50 features BNC connectors, F connector version is RSC.

SVP-SV-RSC-50 — Receive Magic "T" Splitter/Combiner, BNC ..... **$38.95**
SVP-SV-RSC — Receive Magic "T" Splitter/Combiner, F Connectors ..... **$38.95**

## KD9SV Products

### Keying Relay

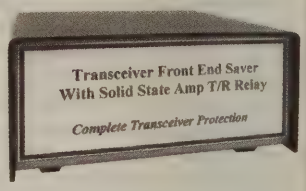



This high-speed interface allows practically any amplifier to be safely connected to, and keyed by, a modern transceiver. It supports full break-in CW and can handle higher voltages than most. This is a great solution for older amplifiers using big, heavy relays. You can even use it as a CW key, keyer, relay debouncing circuit or a remote high-power DC switch.

SVP-SV-KR — Keying Relay ..... **$47.95**

## KD9SV Products

### Front End Saver




If you're using a separate receive antenna, this unit eliminates the chance of accidentally destroying your radio's front end. It interrupts the receive antenna input on your radio when you key the T/R line. The Front End Saver essentially doubles as an amplifier keying interface to prevent transmitted RF energy from going directly back into your radio.

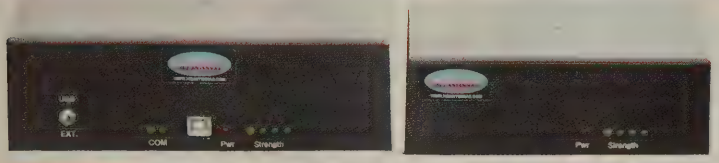
This unit works with radios that have a separate receive input and is not intended for use with negative voltage keyed amplifiers.

SVP-SV-FESSS — Front End Saver ..... **$104.95**

### VLN Preamplifier

The VLN Preamplifier is perfect if you've got a small lot and want to maximize the performance of a small receive antenna. VLN stands for "Very Low Noise," and that's important, because this adjustable 5 FET preamplifier can deliver up to a whopping 40 dB. That kind of power is perfect for low output antennas, like small flag, Waller flag, pennant, and rotary flag antennas. In fact, the VLN Preamplifier works well with virtually any receive antenna.

SVP-SV-BF-994X5 — VLN Preamplifier ..... **$185.95**



### USB Wireless Remote Switch Control System

Control your Hi-Z Receiving Arrays wirelessly from your PC! Think of it as a "virtual" 8-conductor remote switching system. Simply install the controller/transmitter and receiver units, install the software, and after a brief setup you're ready to go. The included software has a graphical directional display, plus a comprehensive status readout that shows the active port, wireless signal strength, current time, and more. The units themselves have intuitive LED status lights for power and signal strength.

The wireless control system operates on 2.4 GHz and the receiver unit requires 12 Vdc power, either through an independent power line or though power-injected coaxial cable.

HIZ-USBWIRELESS USB Wireless Remote Switch Control System ..... **$395.00**

## KD9SV Products

### DXpedition Receive Antenna Switches

SVP-SV-DXSS

Combine a KD9SV preamp with its legendary Front-End Saver and you get a DXpedition Receive Antenna Switch. That means you get a powerful preamp with dual-band band-pass filtering and lightning-fast switching. They're compatible with virtually every modern RF power amplifier. These compact switches are ideal for DXers, serious contesters and antenna experimenters. Select reception of up to 4 receive antennas or the transmit antenna.

DXpedition Switches are designed for radios that have a receive antenna input, while DXpedition II Switches work with radios that don't have a receive input. Please check the polarity of your keying line; these units require positive DC voltage.

SVP-SV-DXSS DXpedition Receive Antenna Switch..... **$353.95**
SVP-SV-DXIISS DXpedition II Receive Antenna Switch..... **$366.95**

## KD9SV Products

### SV-DIN Adapter Cables

SVP-SV-DIN13 SVP-SV-DIN7

Connect Icom transceivers and KD9SV Products DXpedition, DXpedition II, Keying Relay or the Front End Saver. Available with 7-pin DIN and 13-pin DIN Icom ACCY port connector plugs, for use with dozens of legacy and current model Icom transceivers, cables have color-coded male RCA plugs for power and keying.

SVP-SV-DIN13* Adapter Cables, Icom ACCY 13-Pin DIN Plug to 2 x RCA Male ..... **$29.95**
SVP-SV-DIN7* Adapter Cables, Icom ACCY2 7-Pin DIN Plug to 2 x RCA Male ..... **$29.95**

***See information at DXEngineering.com regarding important safety precautions for these cables.**

## KD9SV Products

SVP-SV-PP-SF-160

### Top Band pHEMT FET Preamplifiers

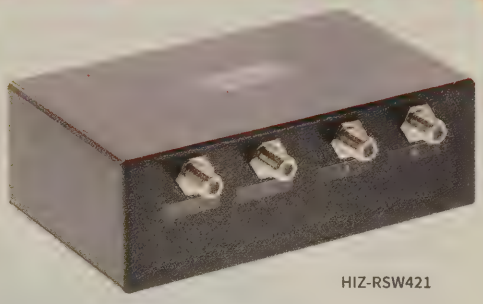
Improve your Top Band reception with a new preamplifier specifically designed for low signal level antennas. KD9SV Products introduces this completely new preamplifier design for 160 meters. Ultra-low noise pHEMT FETs in a push-pull source follower circuit and a tuned input provide the best 1.8 to 2 MHz performance available for very low signal receive antennas. These band-pass filtered preamps reduce broadcast interference and intermodulation products that cause difficulties on Top Band. Plus, a built-in bypass relay allows the connected receiving antenna to be used on other bands.

Featuring components with rated noise figures as low as 0.4 dB and typical gain of 20 dB, these preamps have the extra capability required for small loops and are perfect for single-wire Beverage-on-Ground Antennas (BOGs). These preamplifiers have also been used successfully with flag and pennant type receiving antennas. F connectors allow easy connection to 75 ohm receive system cables.

It's great fun to chase Top Band DX! Help your receive antenna system with a new KD9SV Products Top Band Preamp.

SVP-SV-PP-SF-160 Top Band Ultra-Low Noise Preamp ..... **$139.95**

### Receive Antenna Switches



HIZ-RSW421

Control up to eight separate low band receive antennas remotely. With 70 dB of isolation between ports, these switches provide clear, uncluttered reception from only the antenna you want to hear. Plus, they eliminate the hassle of running multiple feedlines out to your antenna(s). The switches are excellent choices for your Beverage or other dedicated receive antennas.

The switches cover 50 kHz-10 MHz with an SWR of 1.3:1 or less. To supply the required 13.8 Vdc, you can use standalone two-conductor cable or send it down your coax with a DC power injector. The Remote Switches all require a Control Console for remote operation, sold separately.

Hi-Z also offers desktop options, too. A simple, straightforward dial and indicator LEDs make these Desktop Receive Antenna Switches easy to use.

| Part Number | Input Ports | Output Ports | Price |
|---|---|---|---|
| **75 Ω Remote Receive Antenna Switches** | | | |
| HIZ-RSW421 | 4 Female F Connectors | 1 Female F Connector | $139.00 |
| HIZ-RSW821 | 8 Female F Connectors | 1 Female F Connector | $229.00 |
| HIZ-RSW2X421 | 4 Female F Connectors (2 Sets, 8 Total) | 1 Female F Connector | $229.00 |
| **50 Ω Remote Receive Antenna Switches** | | | |
| HIZ-RSW422 | 4 Female BNC Connectors | 1 Female BNC Connector | $145.00 |
| HIZ-RSW822 | 8 Female BNC Connectors | 1 Female BNC Connector | $239.00 |
| HIZ-RSW2X422 | 4 Female BNC Connectors (2 Sets, 8 Total) | 1 Female BNC Connector | $239.00 |
| **75 Ω Desktop Receive Antenna Switches** | | | |
| HIZ-SW421 | 4 Female F Connectors | 1 Female F Connector | $149.00 |
| HIZ-SW821 | 8 Female F Connectors | 1 Female F Connector | $249.00 |
| **50 Ω Desktop Receive Antenna Switches** | | | |
| HIZ-SW422 | 4 Female BNC Connectors | 1 Female BNC Connector | $159.00 |
| HIZ-SW822 | 8 Female BNC Connectors | 1 Female BNC Connector | $259.00 |
| **Control Consoles for Remote Receive Antenna Switches** | | | |
| HIZ-CTRL421 | Console for 4-Port Switching | | $99.00 |
| HIZ-CTRL821 | Console for 8-Port Switching | | $109.00 |

## KD9SV Products

SVP-SV-BPF SVP-SV-CMC SVP-SV-PEN

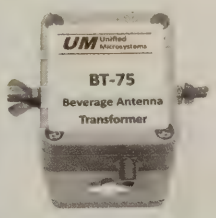
### Chokes, Filters, Transformers and Accessories

Complete your low-band installation with no-compromise gear from KD9SV. All of this equipment has been designed, built and tested to provide ideal low-band performance.

| Part Number | Description | Price |
|---|---|---|
| SVP-SV-BPF | 160M Band-Pass Receive Filter, 1.8-2.0 MHz | $38.95 |
| SVP-SV-CMC | Common-Mode Choke, 500 kHz-10 MHz | $35.95 |
| SVP-SV-PEN | Pennant Transformer & Resistor 900-75 Ω, 160/80/40M | $25.95 |

## UM Unified Microsystems

### Beverage Antenna Transformer



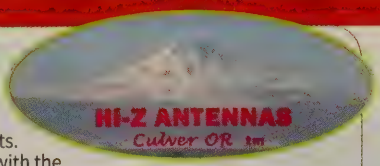

The transformer's output is a perfect match for low-loss 75 Ω RG-6 CATV coaxial cable, which keeps your overall receive antenna system cost down. Plus, it's fully enclosed in a weathertight, stainless steel housing, making it a great option if you deploy your Beverage antenna year-round. The BT-75 also has a built-in gas discharge tube for protection against lighting strikes. Integrated flanges make it easy to mount, too.

UMS-BT-75 Beverage Antenna Transformer ..... **$32.95**

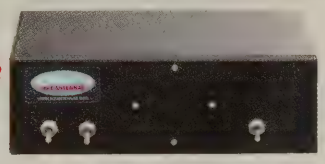
## DX Engineering is Your Exclusive Hi-Z Dealer

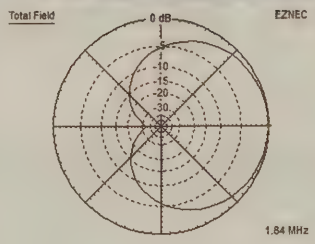
DX Engineering is happy to bring you quality HF Directive Receiving Arrays from Hi-Z Antennas. For years, Hi-Z Antennas has been engineering and perfecting antenna designs with one goal in mind: creating superior products. Now, through an exclusive partnership, you get high-quality Hi-Z Antennas with the customer service you expect from DX Engineering. For all of Hi-Z's products, visit DXEngineering.com.

**Certain Hi-Z products are being manufactured and sold as permitted under the terms of a certain License Agreement among PDS Electronics, Inc. dba DX Engineering, as the Licensor, and Hi-Z Antennas and Lee Strahan, as the Licensees.**




### 3-Element 4-Direction Systems, Level 2





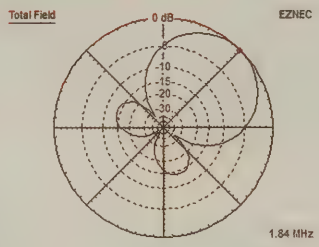

These receiving antenna systems' L configuration makes them perfect for small lots. They use three shortened elements that still provide 4-direction switching. A typical 50 foot layout of three foot tall elements and Hi-Z amplifiers can provide 30 dB of front-to-back ratio on 160 meters.

These systems are well suited for the 160, 80 and 40 meter bands, yet can still receive below the broadcast band, to 30 MHz. They require 13.8 Vdc via a 4-conductor cable: 13.8V, GND, CTRL1 and CTRL2.

HIZ-2-3-LV2-40 — 3-Element, 4-Direction System, Level 2, 40' Spacing ..... **$439.00**

HIZ-2-3-LV2-50 — 3-Element, 4-Direction System, Level 2, 50' Spacing ..... **$439.00**

### 3-Element Triangular Array Systems




These 3-element receive phased vertical arrays offer excellent performance with a small footprint. Their scalable design means you get six switchable directions and you can configure for best RDF or F/B ratio. Since there's no sequencing, the systems thrive in high-RF fields—ideal for those running QRO nearby. (These are also great contesting setups.)

These systems operate on the 160, 80 and 40 meter bands but can be used from below the broadcast band to over 30 MHz. A typical 50 foot triangular layout of 20 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio on 160 meters. They use 13.8 Vdc and a 6-conductor control cable.

HIZ-3-LV2-40 — 3-Element, 6-Direction System, 40' Spacing ..... **$705.00**

HIZ-3-LV2-50 — 3-Element, 6-Direction System, 50' Spacing ..... **$705.00**

### 4-Element Array Systems

This new and unique circuit configuration uses Tri-Phase combining for extra accurate phasing and amplitude stability. This improves performance while also minimizing these systems' footprints. You configure them for optimal RFD and F/B ratio and select from four possible receive directions. Their unique design makes them great options for high-RF areas.

The systems cover 160, 80 and 40 meters, from below the broadcast band to over 30 MHz. A typical 80 foot square layout of 20 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio on 160 meters.

They take 13.8 Vdc via 4-conductor cable, and you can easily upgrade to the Hi-Z 4-8 Pro.

HIZ-4-LV2-60 — 4-Element, 4-Direction System, 60' Spacing ..... **$809.00**

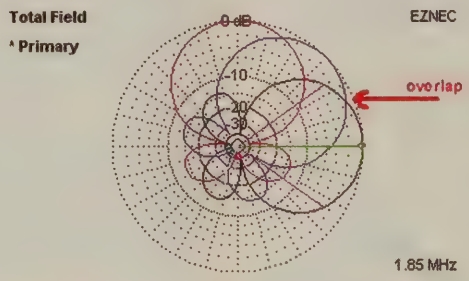
HIZ-4-LV2-80 — 4-Element, 4-Direction System, 80' Spacing ..... **$809.00**

### 8-Element Array Systems

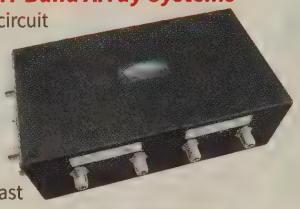
These ultra high-performance monoband arrays feature excellent performance in a small space. All the elements are active in a circle, to provide stellar receive capabilities in eight directions. The F/B ratio of the Hi-Z 8-element array outperforms long Beverage and various loop antennas. The Hi-Z 8A has a preamp external (post) phase controller, making any necessary filter insertion easy. The systems use 13.8 Vdc and a 7-conductor control cable.

HIZ-8A-LV2-80-1 — 8-Element, 8-Direction System, 80M, 100' Spacing ..... **$1,488.00**

HIZ-8A-LV2-160-2 — 8-Element, 8-Direction System, 160M, 200' Spacing ..... **$1,488.00**




### 4-8PRO 8-Element Tri-Band Array Systems



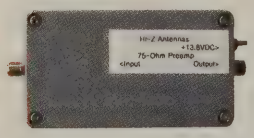
Using a new and unique circuit configuration, these antennas are essentially two interleaved Hi-Z 4S systems. They feature Tri-Phase combining to give you super-accurate phasing and amplitude stability, as well as the least attenuation at all eight overlap points.

A typical 113 foot diameter layout of 20-24 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio with 8 directions. These systems perform well in high-RF fields. They cover 160, 80 and 40 meters, and are powered by 13.8 Vdc through a 5-conductor control cable.

HIZ-4-8P-LV2-85 — 8-Element 8-Direction System, 85' Spacing ..... **$1,303.00**

HIZ-4-8P-LV2-113 — 8-Element 8-Direction System, 113' Spacing ..... **$1,303.00**

### 75 Ω Inline Preamplifier




This 75 Ω cable amplifier provides a precision termination point for typical antenna array controllers/combiners. You'll find this same preamp on Hi-Z's 160 and 80 meter receiving antennas. It is connects to the output of an array controller and provides 15 dB of voltage amplification. External connection requires +13.8 Vdc at .04 amps.

HIZ-PRE-AMP — Inline 75 Ω Preamplifier ..... **$80.00**

DX ENGINEERING

### Vertical Antenna

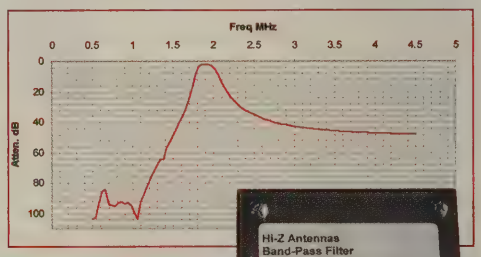
DX Engineering has the perfect antenna to compliment your Hi-Z system. This 24 foot telescoping aluminum tubing antenna is made to withstand the elements. It includes an earth mount and jumper wires to hook up your amplifier.

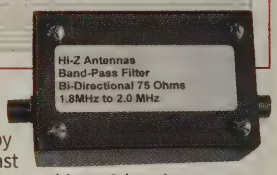
DXE-AL24 — Vertical Antenna, for Hi-Z Receive Systems ..... **$149.95**

### Antenna Amplifier PLUS-6

This weatherproof and ruggedized amplifier is the same unit found in Hi-Z's receiving arrays and can be used on non-resonant high impedance vertical elements. It has built-in common-mode isolation, and provides F connector 75 Ω matched output impedance and increased gain of plus-6 dB. The amplifier requires 13.8 Vdc fed on the coax.

HIZ-PLUS6-AMP — High Impedance Amplifier .... **$104.00**

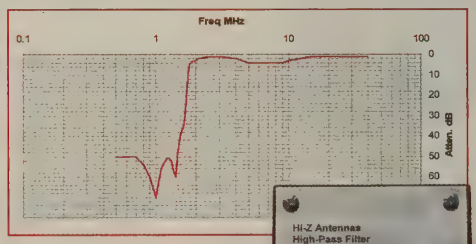


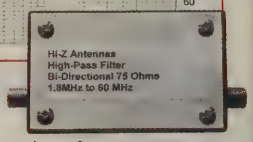




### Band-Pass Filter

If you have a ton of interference from nearby high-power AM broadcast stations, here's your answer. This 75 Ω band pass filter gives you 35 dB of attenuation at 1600 KHz and much more at lower frequencies with an insertion loss of about 2 dB in the pass band. The band-pass 3 dB corners are at 1.8 MHZ and 2.0 MHz.

HIZ-BPF — Band-Pass Filter, 1.8 to 2.0 MHz ..... **$48.00**



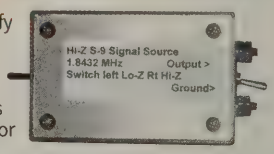




### High-Pass Filter

Protect your preamp or receiver from high level AM broadcast frequency signals. Attenuation is a nominal 30 dB at 1630 KHz and much more at lower frequencies. Insertion loss is an average 2 dB in the pass band. The lower frequency corner is –3 dB at 1.8 MHz.

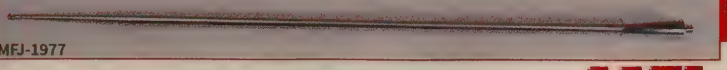
HIZ-HPF — High-Pass Filter, 1.8 to 60 MHz ..... **$48.00**

### S-9 Signal Source




Troubleshoot and verify that your complex multiple-element receiving arrays are working correctly. This self-contained oscillator connects directly to 50 or 75 Ω coax or antenna systems. It is useful for measuring controller output to verify all array elements are working. This unit requires a 9V battery, and there's an LED indicator that ensures there's enough battery life to take accurate measurements.

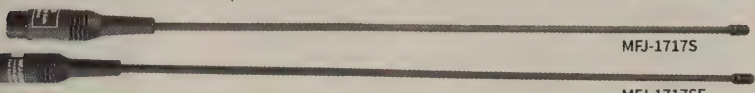
HIZ-SIGNALSOURCE — RF Signal Source ..... **$65.00**


MFJ-1977

## Extra-Long Telescopic Antennas

If you're building a dipole, screwdriver, base or mobile antenna, MFJ offers you a great starting point. Made from stainless steel with standard 3/8"-24 mounts, these antennas are also perfect for traveling, DXpeditions, vacations and Field Day.

| | | |
|---|---|---|
| MFJ-1976 | Telescopic Antenna, 10' | $44.95 |
| MFJ-1977 | Telescopic Antenna, 12' | $44.95 |
| MFJ-1979 | Telescopic Antenna, 17' | $59.95 |


MFJ-1717S
MFJ-1717SF

## HT Antennas

By upgrading your HT's original-equipment antenna, you can get significant coverage gains. MFJ offers some great options to increase the gain of your handheld. These durable antennas are well suited to field conditions.

| Part Number | Description | Length | Price |
|---|---|---|---|
| MFJ-1714 | Monoband, Telescopic, 1/2-Wave on 2 Meter, BNC | 40" | $16.95 |
| MFJ-1714S | Monoband, Telescopic, 1/2-Wave on 2 Meter, SMA Male | 40" | $16.95 |
| MFJ-1712S | Dual-Band, Telescopic, 1/4-Wave on 2 Meter, 5/8-Wave on 70cm, 7.25" Collapsed, SMA | 19" | $14.95 |
| MFJ-1716 | Dual-Band, Flexible, Loaded 1/4-Wave on 2 Meter, 1/4-Wave on 70cm, BNC | 7.5" | $14.95 |
| MFJ-1717S | Dual-Band, Flexible, 1/4-Wave on 2 Meter, 1/2-Wave on 70cm, SMA Male | 15.75" | $21.95 |
| MFJ-1717SF | Dual-Band, Flexible, 1/4-Wave on 2 Meter, 1/2-Wave on 70cm, SMA Female | 15.75" | $18.95 |

## HT Antennas

Maximize your HT or scanner performance. Comet's HT antennas offer significant gain improvements over your original antenna and are super-rugged, making them perfect for use in the field. Many have extended receive capabilities—visit DXEngineering.com for all of the specs. Available in multiple connector types, sizes and band coverage, Comet Antennas are excellent replacement antennas for your scanner or HT.

CMA-SMA-24 CMA-SMA-24J

| Part Number | Description | Length | Gain | Price |
|---|---|---|---|---|
| CMA-SMA-24 | Dual-Band, Flexible, SMA Male, 20 W Power Rating | 15.75" | 2.1 dBi (2M) 3.5 dBi (70cm) | $24.95 |
| CMA-SMA-24J | Dual-Band, Flexible, SMA Female, 20 W Power Rating | 17" | 2.1 dBi (2M) 3.5 dBi (70cm) | $24.95 |

## Mobile Antennas

Durable, powerful, mobile. MFJ gives you excellent, high-performance mobile antennas that will stand up to miles of use. Whatever band you choose, MFJ Mobile Antennas are designed with the serious operator in mind. For complete specs on any MFJ mobile antenna visit DXEngineering.com.

MFJ-1728B

**Mobile HamTenna Whips, 3/8"-24**

| | | |
|---|---|---|
| MFJ-1675T | 75M | $24.95 |
| MFJ-1640T | 40M | $18.95 |
| MFJ-1620T | 20M | $18.95 |
| MFJ-1617T | 17M | $16.95 |
| MFJ-1615T | 15M | $16.95 |
| MFJ-1610T | 10M | $16.95 |
| MFJ-1606T | 6M | $16.95 |
| MFJ-348T | Trunk/Hatchback Mount for MFJ-1600 Series | $42.95 |

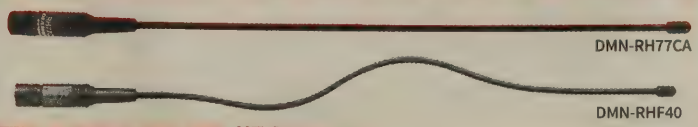
**2M/70cm Mobile Antennas**

| | | |
|---|---|---|
| MFJ-1722 | UltraLite Magnet Mount, BNC, 20" | $16.95 |
| MFJ-1722S | UltraLite Magnet Mount, SMA, 20" | $16.95 |
| MFJ-1734 | Glass Mount, with Coax, 26" | $44.95 |
| MFJ-1724B | Magnet Mount, BNC HT Adapter, 26" | $24.95 |
| MFJ-1412B | 200 Watts, Black Finish, 40" | $29.95 |
| MFJ-1414 | 200 Watts, 58.5" | $19.95 |
| MFJ-1422 | 150 Watts, 41.5" | $34.95 |
| MFJ-1422B | 150 Watts, Black Finish, 41.5" | $32.95 |
| MFJ-1432 | 150 Watts, 62.5" | $49.95 |
| MFJ-1432B | 150 Watts, 62.5" | $49.95 |
| MFJ-1402 | RuffRider, Short-Style | $29.95 |

MFJ-1729

**Mobile Antennas from MFJ**

| | | |
|---|---|---|
| MFJ-1723 | 1.25M Mobile Antenna, Magnet Mount, SO-239 and BNC, 22.5" | $39.95 |
| MFJ-1721 | 2M Mobile Antenna, UltraLite Magnet Mount with Coax, 20" | $15.95 |
| MFJ-1738 | 2M Mobile Antenna, Glass Mount, SlimLine Radiator, 27" | $34.95 |
| MFJ-1728B | 6M/2M Mobile Antenna, Magnet Mount, BNC HT Adapter | $29.95 |


DMN-RH77CA
DMN-RHF40

## HT Antennas

The rubber duckie antenna packaged with your HT may be keeping your handheld from operating at its full potential. Knowing this, Diamond Antenna brings you dual and triple band antennas that offer better performance. As proof, Diamond rates its antennas against the original HT manufacturer's antenna to show you a relative gain improvement over your HT's (or scanner's) stock performance.

Whether you want a simple replacement for a broken HT antenna or you are looking for significantly improved reception, Diamond Antennas has a solution.

| Part Number | Description | Length | Gain | Price |
|---|---|---|---|---|
| DMN-RH77CA | Dual-Band, Flexible, BNC Male, 10 W, Extended Receive to 900 MHz | 15" | 6 dB | $22.95 |
| DMN-RHF40 | Dual-Band, Flexible, BNC Male, 10 W, Extended Receive to 900 MHz | 16" | 6 dB | $27.95 |
| DMN-SRH519 | Dual-Band, Flexible, SMA Male | 7.75" | 3 dB | $26.95 |
| DMN-SRH77CA | Dual-Band, Flexible, SMA Male, 10 W, High Gain & Extended Receive to 900 MHz | 15" | 6 dB | $22.95 |
| DMN-SRJ77CA | Dual-Band, Flexible, SMA Female, 10 W, Extended Receive to 900 MHz | 15" | 6 dB | $24.95 |
| DMN-SRHF40 | Dual-Band, Super-Flexible, SMA Male, 10 W, Extended Receive to 900 MHz | 16" | 6 dB | $26.95 |
| DMN-SRH320A | Tri-Band, Flexible, SMA Male, 10 W Power Rating | 13.75" | 4 dB | $46.95 |
| DMN-SRH940 | Tri-Band, Flexible, SMA Male, 10 W Power Rating | 18" | 2.1 dB | $39.95 |
| DMN-SRH789 | Dual-Band, Scanner Antenna, Telescopic, SMA Male, 10 W, 85-300 MHz and 300-1100 MHz | 31.7" | — | $32.95 |

ALO-REM-VU100S
ALO-REM-VU100B

## 2M/70cm Handheld Radio Replacement Antennas

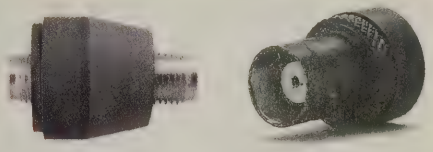
This is an excellent upgrade to your Alinco's lost or damaged original rubber duckie. Its a flexible, 15" long antenna that offers a relative 6 dB gain over the stock piece.

| | | |
|---|---|---|
| ALO-REM-VU100B | Handheld Replacement Antenna, BNC Male | $26.95 |
| ALO-REM-VU100S | Handheld Replacement Antenna, SMA Male | $26.95 |

MLD-MH-209

| Part Number | Description | Length | Price |
|---|---|---|---|
| MLD-NS-146 | 2M HT Antenna, BNC Male Connector | 4" | $14.95 |
| MLD-MH-209 | 2M/70cm HT Antenna, BNC Male Connector | 3" | $19.95 |
| MLD-MH-209SMA | 2M/70cm HT Antenna, SMA Male Connector | 3" | $23.95 |

## Coaxial Adapters

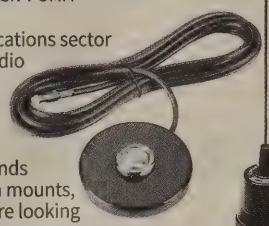

DMN-SMAJ-SMAJ DMN-BNCJ-SMAP

Upgrading your HT with a new antenna may require an adapter. Diamond Antennas comes through with a line of adapters well suited to handheld use. DX Engineering carries a wide range of adapters for practically every Ham Radio application, type keyword "Adapter" into the search box at DXEngineering.com to see more.

| Part Number | HT Connector | Antenna Connector | Price |
|---|---|---|---|
| DMN-BNCJ-SMAP | SMA Male | BNC Female | $9.95 |
| DMN-BNCP-SMAJ | BNC Male | SMA Female | $9.95 |
| DMN-SMAJ-SMAJ | SMA Female | SMA Female | $9.95 |

Pulse/ Electronics LARSEN ANTENNAS

LSN-POMM


LSN-NMOMMRPL

LSN-NMO150B

LSN-NMO27B

### VHF/UHF Mobile Antennas and Mounts

Larsen built its reputation for quality by supplying the commercial telecommunications sector with high performance and ultra-reliable radio antennas. You can expect those same traits in Larsen's Amateur Radio offerings. These mobile antennas are available in a wide range of mounting, gain, height and connector configurations. Larsen recommends installing the antennas with genuine Larsen mounts, listed below. If you don't see the setup you're looking for, contact us and we'll find it for you.

| Part Number | Band(s) | Gain | Height | Base | Price |
|---|---|---|---|---|---|
| LSN-NMO27C | 10/11M | 2 dBi | 52.5" | Stainless Whip, NMO Mount | $49.95 |
| LSN-NMO27B | 10/11M | 2 dBi | 52.5" | Black Whip, NMO Mount | $52.95 |
| LSN-KG144UDPL | 2M | 2 dBi | 48" | Glass Mount, 14' of RG-58, PL-259 | $109.95 |
| LSN-NMO150B | 2M | 5.1 dBi | 51.5" | Black Whip, NMO Mount | $39.95 |
| LSN-NMO150C | 2M | 5.1 dBi | 51.5" | Stainless Whip, NMO Mount | $35.95 |
| LSN-KG2-70CXPL | 2M<br>70cm | 2 dBi<br>4 dBi | 32.8" | Glass Mount, 14' of RG-58, PL-259 | $145.95 |
| LSN-MM2-70PL | 2M<br>70cm | 2 dBi<br>4 dBi | 32.8" | Magnet Mount, 12' of RG-58, PL-259 | $67.95 |
| LSN-NMO2-70B | 2M<br>70cm | 3.8 dBi<br>5.2 dBi | 34.5" | Black Whip, NMO Mount | $69.95 |
| LSN-NMO2-70SH | 2M<br>70cm | 2.1 dBi<br>4.0 dBi | 19" | Stainless Whip, NMO Mount | $54.95 |
| LSN-NMO220B | 1.25M | 5.2 dBi | 30" | Black Whip, NMO Mount | $46.95 |
| LSN-NMO220C | 1.25M | 5.2 dBi | 30" | Stainless Whip, NMO Mount | $43.95 |

| Larsen Mounts and Replacement Parts | | |
|---|---|---|
| LSN-NMOK | NMO Mount, 17' of RG-58, PL-259 | $25.95 |
| LSN-NMOKHFCXPL | HF NMO Mount, 17' of RG-58, PL-259 | $29.95 |
| LSN-NMOMMPL | Square NMO Magnet Mount, 12' of RG-58, PL-259 | $59.95 |
| LSN-NMOMMRPL | Round NMO Magnet Mount, 12' of RG-58, PL-259 | $46.95 |
| LSN-NMOTLP | NMO Trunk Lid Mount, 17' of RG-58, PL-259 | $49.95 |
| LSN-POMM | Square SO-239 Magnet Mount, 12' of RG-58, PL-259 | $59.95 |
| LSN-RGNMOANT | 3 Replacement Gaskets for NMO Coil/Base Mount | $6.95 |
| LSN-NMOCAPB | Rain Cap for NMO Mount | $6.95 |
| LSN-KGREINSTALL | Glass Mount Re-installation Kit | $15.95 |

HUSTLER

### Hustler Standard and Super Resonators

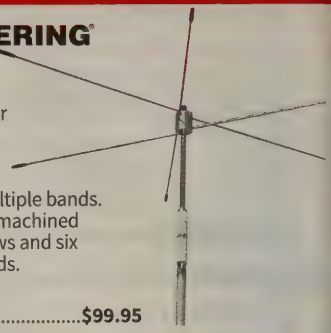
Individual Hustler Resonators are available for 80, 75, 40, 30, 20, 17, 15, 12 and 10 meters. Use these resonators with Hustler's mounts, mobile masts, and other accessories to build a custom mobile antenna. Use DX Engineering Hot Rodz® capacity hats and other accessories with these resonators to improve antenna efficiency. Find more Hustler Resonator options at DXEngineering.com.

| Part Number | Band | Power Handling (PEP) | Bandwidth at 2:1 SWR | Price |
|---|---|---|---|---|
| HSR-RM-80 | 80M | 400 W | 25-30 kHz | $35.95 |
| HSR-RM-80S | 80M | 1,000 W | 50-60 kHz | $68.95 |
| HSR-RM-75 | 75M | 400 W | 50-60 kHz | $35.95 |
| HSR-RM-75S | 75M | 1,000 W | 50-60 kHz | $68.95 |
| HSR-RM-40 | 40M | 400 W | 40-50 kHz | $32.95 |
| HSR-RM-40S | 40M | 1,000 W | 50-80 kHz | $51.95 |
| HSR-RM-30 | 30M | 400 W | 50-60 kHz | $32.95 |
| HSR-RM-20 | 20M | 400 W | 80-100 kHz | $27.95 |
| HSR-RM-17 | 17M | 400 W | 120-150 kHz | $27.95 |
| HSR-RM-15 | 15M | 400 W | 100-150 kHz | $21.50 |
| HSR-RM-12 | 12M | 400 W | 90-120 kHz | $21.50 |
| HSR-RM-10 | 10M | 400 W | 150-250 kHz | $21.50 |

| Replacement Parts for Hustler Resonators | | |
|---|---|---|
| HSR-49-04-40S | Replacement Whip for RM-40S | $6.25 |
| HSR-49-04-80S | Replacement Whip/Corona Ball for RM-75S/80S | $10.95 |

DX ENGINEERING

### Hot Rodz® Capacity Hat for Hustler Mobile Antennas



This fully adjustable system attaches directly to your Hustler HF antenna. Hot Rodz improves efficiency, allowing the use of a smaller loading coil for a given frequency band. Other benefits include wider bandwidth and the ability to use a single coil on multiple bands. The Hot Rodz Capacity Hat comes with a precision-machined 6061-T6 aluminum hub with stainless steel set screws and six each of 6 inch, 12 inch and 24 inch stainless steel rods.

DXE-HR-1P Hot Rodz Capacity Hat for Hustler Mobile Antennas ..... $99.95

### Hot Rodz® Capacity Hat for Screwdriver Antennas

This fully adjustable system attaches directly to any screwdriver antenna. Hot Rodz allows you to remove the long whip from your antenna while increasing efficiency, so you can use less coil for any given frequency. The Hot Rodz Capacity Hat comes with a 22 inch tall mast, and six each of the 6 inch, 12 inch and 24 inch stainless steel rods.

DXE-HR-2P Hot Rodz Capacity Hat for Screwdriver Antennas ..... $109.95

### Hot Rodz® Capacity Hat Components

Increase the efficiency of your own shortened antenna by building your own Hot Rodz Capacity Hat system. Visit DXEngineering.com for complete details.

| | | |
|---|---|---|
| DXE-HRHUB-1P | Hot Rodz Hub, Smooth Bore with Set Screws | $29.95 |
| DXE-HRHUB-2P | Hot Rodz Hub, Threaded Bore | $32.95 |
| DXE-RODZ-48P | Hot Rodz 48" Stainless Steel Rods | $31.95 |
| DXE-RODZ-36P | Hot Rodz 36" Stainless Steel Rods | $29.95 |
| DXE-RODZ-60P | Hot Rodz 60" Stainless Steel Rods | $34.95 |
| DXE-RODZ-72P | Hot Rodz 72" Stainless Steel Rods | $35.95 |

DX ENGINEERING

### Mobile Whip, Coupler and Masts

DXE-WP-102

DX Engineering's WP-102 is the classic 102" whip, perfect for 10 meter operation. Hustler also offers two mast options, a 54" mast with a handy fold-over feature and a 22" non-folding option. Both Hustler masts and the DX Engineering whip feature a 3/8"-24 stud mount. For easy installation and removal of masts and mast sections, check out Hustler's Quick-Disconnect Coupler.

Use the HSR-QD-2 Quick Disconnect to quickly disconnect one mast from another. The HSR-MO-2 Folding Mast allows quick change of Hustler resonators.

| | | |
|---|---|---|
| DXE-WP-102 | Mobile Whip Antenna, Tapered, 1-Piece, Stainless Steel, 8.50' Length, 3/8"-24 Stud | $24.95 |
| HSR-MO-2 | Hustler 54" Folding Mast for Fender/Bumper Mount | $43.95 |
| HSR-MO-4 | Hustler Non-Folding Mast, 22" Total Length | $28.95 |
| HSR-QD-2 | Hustler Stainless Steel Quick Disconnect, 3/8"-24 | $29.95 |

DX ENGINEERING

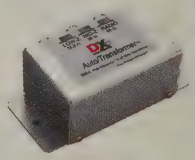
### Aluminum Masts

DX Engineering 1/2 inch OD, 0.084 inch wall aluminum masts are available in lengths from 24 to 72 inches. Both ends are tapped to standard 3/8"-24 threads to fit common accessories. Couple two masts together with our fittings to make your ideal length.

Fittings are available to add resonators or a Hot Rodz® Capacity Hat to the top of the antenna.

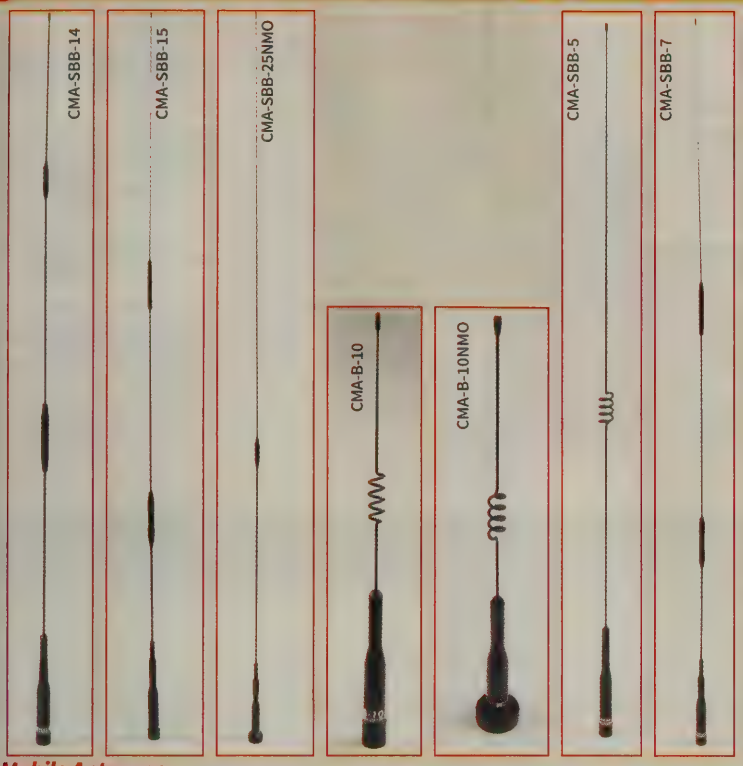
| | | |
|---|---|---|
| DXE-MT-24 | 24" Aluminum Mast | $19.95 |
| DXE-MT-36 | 36" Aluminum Mast | $23.95 |
| DXE-MT-54 | 54" Aluminum Mast | $28.95 |
| DXE-MT-60 | 60" Aluminum Mast | $32.95 |
| DXE-MT-72 | 72" Aluminum Mast | $36.95 |

### Dual Impedance Antenna Transformer



This unbalanced to unbalanced (UNUN) impedance transformer matches a 50 Ω to 25 Ω or 12.5 Ω connection. Use it to get a better match between a feedline and a typical mobile antenna. It works well with Hot Rodz® Capacity Hat-equipped antennas.

DXE-MM-1 Dual Impedance Antenna Transformer ..... $119.95




## *Mobile Antennas*

Comet lets you take your show on the road with a vast selection of effective, reliable and durable mobile antennas. There are options for every common band, plus dual-band and tri-band antennas too. Comet also gives you several different antenna styles to ensure the installation in your vehicle stays clean and unobtrusive.

In addition to use in your vehicle, these mobile antennas are also great for Field Day or EMCOMM. Their rugged durability makes them portable, even in less-than-ideal conditions. Take a look at the chart; it is easy to find one that's perfect for your needs.

**You can get all the specs at DXEngineering.com.**

### Tri-Band

| Part Number | Description | Height | Band(s) | Gain | Price |
|---|---|---|---|---|---|
| CMA-SBB-14 | Tri-Band Mobile Antenna, Black, Fold-Over, UHF Base | 43" | 6 Meter<br>2 Meter<br>70cm | —<br>3.5 dBi<br>6 dBi | **$69.95** |
| CMA-SBB-14NMO | Tri-Band Mobile Antenna, Black, Fold-Over, NMO Base | 43" | 6 Meter<br>2 Meter<br>70cm | —<br>3.5 dBi<br>6 dBi | **$69.95** |
| CMA-SBB-15 | Tri-Band Mobile Antenna, Black, Fold-Over, UHF Base | 61" | 6 Meter<br>2 Meter<br>70cm | 2.4 dBi<br>4.5 dBi<br>7.2 dBi | **$89.95** |
| CMA-SBB-224 | Tri-Band Mobile Antenna, Black, Fold-Over, UHF Base | 36" | 2 Meter<br>1.25 Meter<br>70cm | 2.1 dBi<br>3.5 dBi<br>6 dBi | **$79.95** |
| CMA-SBB-224NMO | Tri-Band Mobile Antenna, Black, Fold-Over, NMO Base | 36" | 2 Meter<br>1.25 Meter<br>70cm | 2.1 dBi<br>3.5 dBi<br>6 dBi | **$79.95** |

### Monoband

| Part Number | Description | Height | Band | Gain | Price |
|---|---|---|---|---|---|
| CMA-SBB-123 | Monoband Mobile Antenna Black, Type N Mount | 24" | 23cm | 7.2 dBi | **$54.95** |
| CMA-TA-3 | Monoband Mobile Antenna Black, Type N Mount | 26" | 33cm | 6.2 dBi | **$59.95** |
| CMA-SBB-25 | Monoband Mobile Antenna Black, UHF Mount | 57" | 2 Meter | 4.1 dBi | **$52.95** |
| CMA-SBB-25NMO | Monoband Mobile Antenna Black, NMO Mount | 57" | 2 Meter | 4.1 dBi | **$52.95** |

### Dual-Band

| Part Number | Description | Height | Band(s) | Gain | Price |
|---|---|---|---|---|---|
| CMA-B-10 | Dual-Band Mobile Antenna Black, UHF Mount | 12" | 2 Meter<br>70cm | —<br>2.1 dBi | **$42.95** |
| CMA-B-10NMO | Dual-Band Mobile Antenna Black, NMO Mount | 12" | 2 Meter<br>70cm | —<br>2.1 dBi | **$42.95** |
| CMA-SBB-1NMO | Dual-Band Mobile Antenna Black, NMO Mount | 16" | 2 Meter<br>70cm | 1.5 dBi<br>2.1 dBi | **$42.95** |
| CMA-SBB-2 | Dual-Band Mobile Antenna Black, UHF Mount | 18" | 2 Meter<br>70cm | 2.1 dBi<br>3.8 dBi | **$42.95** |
| CMA-SBB-2NMO | Dual-Band Mobile Antenna Black, NMO Mount | 18" | 2 Meter<br>70cm | 2.1 dBi<br>3.8 dBi | **$42.95** |
| CMA-SS-460SBNMO | Dual-Band Mobile Antenna Black, NMO Spring Mount | 18" | 2 Meter<br>70cm | 2.1 dBi<br>3.8 dBi | **$43.95** |
| CMA-M-24M | Dual-Band Mobile Antenna Magnet Mount, 12' Coax, PL-259 | 19.5" | 2 Meter<br>70cm | 1.7 dBi<br>4.1 dBi | **$42.95** |
| CMA-M-24S | Dual-Band Mobile Antenna Mag Mount, 12' Coax, Male SMA | 19.5" | 2 Meter<br>70cm | 1.7 dBi<br>4.1 dBi | **$42.95** |
| CMA-SS-680SB | Dual-Band Mobile Antenna Black, UHF Spring Mount | 27" | 2 Meter<br>70cm | 2.1 dBi<br>4.1 dBi | **$46.95** |
| CMA-SS-680SBNMO | Dual-Band Mobile Antenna Black, NMO Spring Mount | 27" | 2 Meter<br>70cm | 2.1 dBi<br>4.1 dBi | **$46.95** |
| CMA-SBB-5 | Dual-Band Mobile Antenna Black, Fold-Over, UHF Mount | 38" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$58.95** |
| CMA-SBB-5NMO | Dual-Band Mobile Antenna Black, Fold-Over, NMO Mount | 38" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$58.95** |
| CMA-CSB-750A | Dual-Band Mobile Antenna Fold-Over, UHF Mount | 42" | 2 Meter<br>70cm | 3.6 dBi<br>6.1 dBi | **$75.95** |
| CMA-SBB-7 | Dual-Band Mobile Antenna, Black, Fold-Over, UHF Mount | 55" | 2 Meter<br>70cm | 4.5 dBi<br>7.2 dBi | **$79.95** |
| CMA-SBB-7NMO | Dual-Band Mobile Antenna Black, Fold-Over, NMO Mount | 55" | 2 Meter<br>70cm | 4.5 dBi<br>7.2 dBi | **$79.95** |
| CMA-CSB-790A | Dual-Band Mobile Antenna Fold-Over, UHF Mount | 62" | 2 Meter<br>70cm | 5.1 dBi<br>7.7 dBi | **$109.95** |

## *Multi-Band Mobile Antennas*

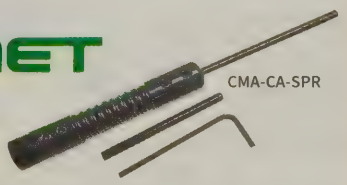
Combine incredible frequency coverage in a rugged package, and you get these versatile antennas from Comet. You can make SWR adjustments independently and achieve SWR levels lower than a monoband antenna.

A fold-over hinge is included with both models, handy for low overhangs, and they have a PL-259 connector. Available in quad-band and six-band models, these antennas are a great option if you want extended mobile coverage without turning your vehicle's roof into an antenna farm.

CMA-UHV-4 — 10M/6M/2M/70cm Quad-Band Mobile Antenna, 54" High ..... **$119.95**

CMA-UHV-6 — 40M/15M/10M/6M/2M/70cm Six-Band Mobile Antenna, 76" High ..... **$165.95**

## *CA-2x4SR Mobile Vertical Antennas*




These antennas are built to assist search and rescue volunteers who need voice communications on the Ham, land mobile and FRS frequency ranges. With these 40" antennas you get remarkable coverage, with 3.8 dBi gain on 2M and 6.2 dBi gain on 70cm. Plus, you'll be able to transmit and receive in both bands. Made for the field, these are the ideal mobile antennas for EMCOMM.

CMA-CA-2X4SR — 2M/70cm Broadband Mobile Antenna, UHF Base ..... **$69.95**

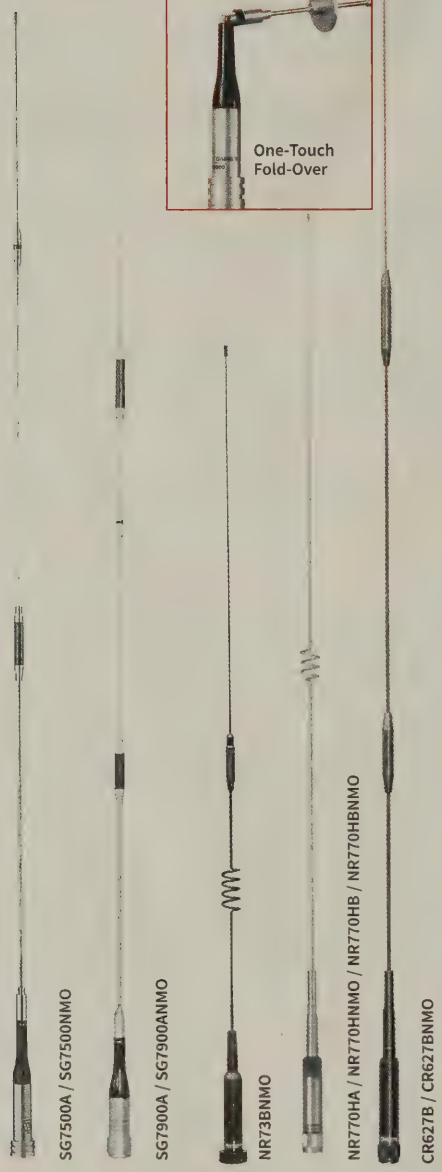
CMA-CA-2X4SRNMO — 2M/70cm Broadband Mobile Antenna, NMO Base ..... **$69.95**

CMA-CA-SPR — Optional Spring Section for 2X4SR Antennas ..... **$20.95**

DIAMOND ANTENNA

## Mobile Antennas

Diamond offers you an extensive line of mobile antennas, so you can easily find one suited for your exact demands. These antennas are the ideal fusion of price, quality and versatility. Whether your priority is based on gain, height, power or aesthetics, there's a Diamond Antenna that's perfect for you. Check out the chart, DXEngineering.com has additional specs to help you refine your choices.




## Supergainer Antennas

If you want an effective mobile wideband antenna that offers great performance without a lot of tuning and adjustment headaches, then Diamond's Supergainer series is perfect. These wideband antennas feature 24K gold plated connector pins for excellent continuity, and the fold-over design is invaluable if you face low overhead obstructions like garages or parking decks.

DMN-SG7000A 2M/70cm Wideband Antenna, UHF, 18.5" ..... **$69.95**

DMN-SG7500A 2M/70cm Wideband Antenna, Radial-less, UHF, 40.6" ..... **$69.95**

DMN-SG7500NMO 2M/70cm Wideband Antenna, Radial-less, NMO, 41" ..... **$75.95**

DMN-SG7900A 2M/70cm Wideband Antenna, Radial-less, UHF, 62.2" ..... **$99.95**

DMN-AZ507RSP 2M/70cm SlimGainer, Radial-less, UHF, 27.5" ..... **$46.95**

DIAMOND ANTENNA

## Mobile HF Monoband Antennas

Made for miles of reliable operation, these antennas provide low SWR and no-compromise performance. They feature fold-over hinges and SO-239 mounts. The stainless steel construction means they'll handle the rigors of mobile use, while the 2-piece design makes them easy to store.

| Part Number | Band | (PEP) | Height | Price |
|---|---|---|---|---|
| DMN-HF80CL | 80M | 120 W | 87.5" | **$69.95** |
| DMN-HF40CL | 40M | 200 W | 86.6" | **$69.95** |
| DMN-HF20CL | 20M | 200 W | 86.6" | **$69.95** |
| DMN-HF17CL | 17M | 200 W | 86.6" | **$69.95** |
| DMN-HF15CL | 15M | 200 W | 86.6" | **$69.95** |
| DMN-HF10CL | 10M | 200 W | 86.6" | **$69.95** |
| DMN-HF6CL | 6M | 250 W | 86.6" | **$69.95** |

DIAMOND ANTENNA

## Mobile Screwdriver Antenna

Imagine: One antenna, ALL HF bands—plus 6 meters. Available with a UHF mount or a 3/8"-24 stud mount, these antennas are your answer for a comprehensive mobile HF setup. They run off your vehicle's 12 Vdc system and allow you to move from band-to-band with the flick of a switch. The SD330 antenna also provides excellent SWR and can handle 200 watts PEP.

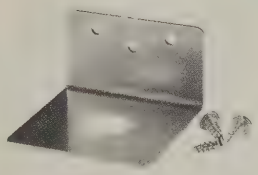
These antennas stand over 73 inches tall and weigh 2.5 pounds, so make sure your vehicle can handle the size. The kits include the antenna, motor, switch and wiring harness.

DMN-SD330 Mobile Screwdriver Antenna, HF Mount ..... **$389.95**

| Part Number | Description | Height | Band(s) | Gain | Price |
|---|---|---|---|---|---|
| | **Monoband** | | | | |
| DMN-HF6CL | Mobile Antenna Fold-Over, UHF Mount | 86.6" | 6 Meter | 2.15 dBi | **$69.95** |
| DMN-M285S | Mobile Antenna Trim-to-Tune, UHF Mount | 50" | 2 Meter | 3.4 dBi | **$31.95** |
| DMN-M285SNMO | Mobile Antenna Trim-to-Tune, NMO Mount | 50" | 2 Meter | 3.4 dBi | **$31.95** |
| DMN-NR22L | Mobile Antenna Fold-Over, UHF Mount | 96.8" | 2 Meter | 6.5 dBi | **$64.95** |
| | **Dual-Band** | | | | |
| DMN-AZ504FXH | Mobile Antenna, UHF Mount | 15.5" | 2 Meter<br>70cm | —<br>2.1 dBi | **$39.95** |
| DMN-AZ504SP | Mobile Antenna Spring Base, UHF Mount | 15.5" | 2 Meter<br>70cm | —<br>2.1 dBi | **$39.95** |
| DMN-NR72BNMO | Mobile Antenna, NMO Mount | 13.8" | 2 Meter<br>70cm | 2.1 dBi | **$39.95** |
| DMN-MR73SMA | Mobile Antenna with Mini Mag-Mount, Coax, SMA Female | 19.5" | 2 Meter<br>70cm | 2.1 dBi<br>3.4 dBi | **$26.95** |
| DMN-MR77 | Mobile Antenna with Mini Mag-Mount, Coax, UHF Male | 20" | 2 Meter<br>70cm | 2.1 dBi<br>3.4 dBi | **$37.95** |
| DMN-MR77SJ | Mobile Antenna with Mini Mag-Mount, Coax, SMA Female | 20" | 2 Meter<br>70cm | 2.1 dBi<br>3.4 dBi | **$37.95** |
| DMN-MR77SMA | Mobile Antenna with Mini Mag-Mount, Coax, SMA Male | 20" | 2 Meter<br>70cm | 2.1 dBi<br>3.4 dBi | **$37.95** |
| DMN-NR73BNMO | Mobile Antenna Radial-less, NMO Mount | 33.5" | 2 Meter<br>70cm | 2.1 dBi<br>5.3 dBi | **$54.95** |
| DMN-NR770HNMO | Chrome Mobile Antenna Radial-less, NMO Mount | 38.2" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$53.95** |
| DMN-NR770HBNMO | Black Mobile Antenna Radial-less, NMO Mount | 38.2" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$53.95** |
| DMN-NR770HA | Chrome Mobile Antenna Radial-less, UHF Mount | 40.2" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$48.95** |
| DMN-NR770HB | Black Mobile Antenna Radial-less, UHF Mount | 40.2" | 2 Meter<br>70cm | 3 dBi<br>5.5 dBi | **$53.95** |
| DMN-NR7900A | Mobile Antenna Fold-Over, UHF Mount | 57" | 2 Meter<br>70cm | 3.7 dBi<br>6.4 dBi | **$84.95** |
| DMN-SG7900ANMO | Mobile Antenna Fold-Over, NMO Mount | 62" | 2 Meter<br>70cm | 5 dBi<br>7.6 dBi | **$121.95** |
| | **Tri-Band** | | | | |
| DMN-CR320A | Mobile Antenna Fold-Over, UHF Mount | 37.4" | 2 Meter<br>1.25 Meter<br>70cm | 2.1 dBi<br>3.8 dBi<br>5.5 dBi | **$79.95** |
| DMN-CR320BNMO | Mobile Antenna Fold-Over, NMO Mount | 37.4" | 2 Meter<br>1.25 Meter<br>70cm | 2.1 dBi<br>3.8 dBi<br>5.5 dBi | **$79.95** |
| DMN-CR627B | Mobile Antenna Fold-Over, UHF Mount | 60" | 6 Meter<br>2 Meter<br>70cm | 2.1 dBi<br>4.5 dBi<br>7.2 dbi | **$84.95** |
| DMN-CR627BNMO | Mobile Antenna Fold-Over, NMO Mount | 60" | 6 Meter<br>2 Meter<br>70cm | 2.1 dBi<br>4.5 dBi<br>7.2 dbi | **$84.95** |
| DMN-NR2000NA | Mobile Antenna Fold-Over, Type N Mount | 39" | 2 Meter<br>70cm<br>23cm | 3.1 dBi<br>6.3 dBi<br>9.7 dBi | **$84.95** |
| | **Quad-Band** | | | | |
| DMN-CR8900A | Mobile Antenna, for Yaesu FT-8900/8900R, SO-239, Not Recommended for Magnet Mounts | 50" | 10 Meter<br>6 Meter<br>2 Meter<br>70cm | 2.1 dB<br>2.1 dB<br>2.1 dB<br>5.5 dB | **$99.95** |

### Mobile Antenna Mounts

| | | |
|---|---|---|
| HSR-SSM-2 | Heavy-Duty Stainless Steel Ball Mount, 2" Diameter | $37.95 |
| HSR-SSM-3 | Stainless Steel Spring, 3" | $37.95 |
| HSR-L-14-144 | 12' RG-58/PL-259 to Lugs, Coax to Ball Mount | $12.95 |
| HSR-VP-1 | Tri-Band Adapter for HF Mobile Antenna | $10.00 |
| HSR-QD-2 | Stainless Steel Quick Disconnect, 3/8"-24 | $29.95 |
| HSR-RSS-2 | Stainless Steel "Resonator" Impact Spring | $19.50 |
| HSR-MBM | Super Magnetic Mount, 16' Coax, 3/8"-24 Antenna | $28.50 |



### Flat Surface Mobile Antenna Mounts

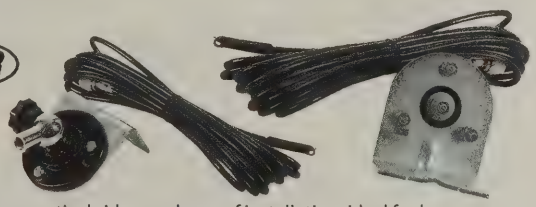
Though they're made for securing a mobile antenna to the side of a vehicle (like a panel truck or an RV), these stainless steel mounts are also a great way to install a small vertical/mobile antenna on your home's rain gutters. They have a 3/4-inch hole that will accept LM, NMO and SO-239 mounts. Installation screws are included.

| | | |
|---|---|---|
| LSN-TMB34 | Flat Surface Mount, Natural Finish | $7.95 |
| LSN-TMB34B | Flat Surface Mount, Black Finish | $11.75 |

### Coaxial Adapter

If you're going to run a big mast or antenna on your mobile rig, chances are that it's going to have a stud mount. Make your installation go smoothly with this handy adapter that takes your SO-239 antenna mount and converts it to a 3/8"-24 stud mount. It includes male/female adapters for the stud, too.

| | | |
|---|---|---|
| DMN-D38-24 | Coaxial Adapter | $19.95 |



### Recreational Vehicle Mount

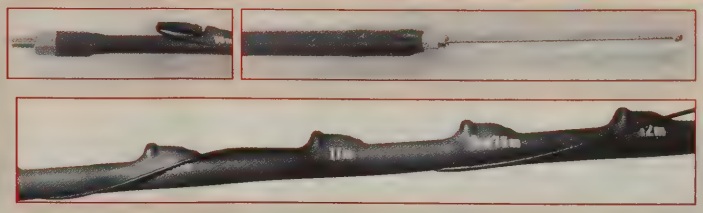
This mount is designed for a vertical side panel or roof installation, ideal for larger vehicles. It swivels 180 degrees and will accept most flexible antennas up to 55 inches long with 3/8"-24 bases. The mount includes a grommet for panel pass-through and 17 feet of RG58/U with a PL-259 connector.

| | | |
|---|---|---|
| HSR-RVM | Recreational Vehicle Mount | $25.95 |

### Antenna Mount Adapters

Stretch your mobile antenna budget by using NCG Antenna Mount Adapters. Instead of buying a new mount for your new antenna, You can repurpose your existing mount using these adapters. Made from top quality materials, these no-compromise mounts will speed up new antenna installs.

| | | |
|---|---|---|
| NCG-AD-10N | Antenna Mount Adapter, Type N Female to NMO | $21.95 |
| NCG-AD-15M | Antenna Mount Adapter, NMO to SO-239 | $21.95 |
| NCG-AD-25M | Antenna Mount Adapter, SO-239 to NMO | $15.95 |
| NCG-AD-35M | Antenna Mount Adapter, SO-239 to 3/8"-24 | $17.95 |



### Highlander 8 Tapped Mobile Whip Antenna

Bushcomm does more than make wire antennas, its Highlander 8 Mobile Whip is an 80-6M antenna that can handle up to 250 watts PEP. Carefully coiled antenna wire keeps the fiberglass mast's height under six feet. Want to change bands? Simply plug into a different tap. Tuning is possible by adjusting the antenna's variable length tip. It has a 3/8"-24 stud; a heavy duty mount is recommended.

| | | |
|---|---|---|
| BCM-BU01180 | Highlander 8 Tapped Mobile Whip Antenna | $289.95 |

### HF/VHF/UHF Mobile Vertical Antenna

For the mobile operator who doesn't want to be confined to one band, Diamond offers you this versatile solution. It gets you on the 10 meter, 6 meter, 2 meter and 70cm bands, with 2.1 dBi gain on HF/VHF and 5.5 dBi gain on UHF. It will handle 200 watts (PEP) on UHF/VHF and 125 watts on HF. You'll also get impressive bandwidth, depending on your grounded mount's location. At 50 inches high, this antenna is not recommended for a magnet mount.

You can add optional loading coils for even more HF coverage.

| | | |
|---|---|---|
| DMN-HV7A | HF/VHF/UHF Mobile Vertical Antenna | $109.95 |
| DMN-HVC7 | 40 Meter Loading Coil for HV7A | $44.95 |
| DMN-HVC14 | 20 Meter Loading Coil for HV7A | $37.95 |
| DMN-HVC18 | 17 Meter Loading Coil for HV7A | $37.95 |
| DMN-HVC21 | 15 Meter Loading Coil for HV7A | $37.95 |

### TARGETuner Screwdriver Antenna Controller

This clever bit of gear monitors your antenna position and automatically adapts to vehicle travel, the environment and SWR to prevent detuning and ensure optimum performance. It also delivers a digital readout of your radio's frequency and SWR level, plus gives you manual control of your antenna. The TARGETuner can even alert you if the SWR reaches a defined threshold.

This controller works with systems that have both a motor control and frequency sensor (for band matching). It includes the display, control unit and hookup cables. A mounting kit is available separately. Find more details on the TARGETuner at DXEngineering.com.

| | | |
|---|---|---|
| WMT-58425-1473 | TARGETuner Screwdriver Antenna Controller | $234.95 |
| WMT-58426-1539 | TARGETuner Mounting Brackets | $12.95 |

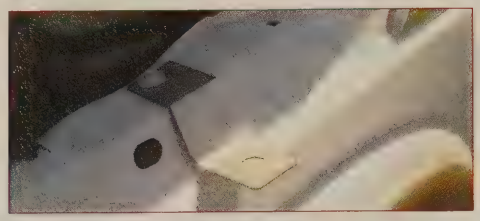
### Antenna Whips and Kit

Great for screwdriver antennas, these stainless steel whips hold up in the harshest environments. Every whip features a 3/8"-24 connector for easy installation.

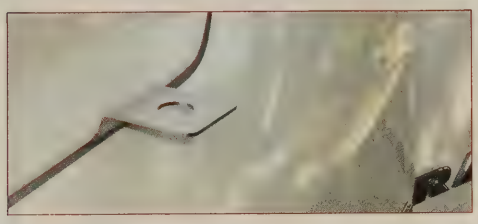
The MFJ-1964K Antenna Kit combines all of the critical pieces to make an excellent portable antenna for the 10 through 60 meter bands. It includes an MFJ-1954 10 foot telescopic whip antenna, an MFJ-404-0008 coil, six silver plated tap clips and a chassis mount SO-239 connector.

| | | |
|---|---|---|
| MFJ-1964K | Portable Antenna Kit | $54.95 |
| MFJ-1964 | Antenna Whip, 6' | $26.95 |
| MFJ-1966 | Antenna Whip, 9' | $25.95 |

COMET™



CMA-SD2ANTNCG



CMA-DG2ANTPF

## No-Hole Fender Brackets

Mount your mobile antenna without damaging your truck or SUV's paint. The brackets use the existing fender bolts, so there are no holes to drill and no set-screws that could scratch your vehicle's finish. The brackets have a 3/4" hole that works with most NMO and PL-259 connector assemblies.

Don't see your vehicle listed? Visit DXEngineering.com to see more brackets.

| Part Number | Vehicle Application | Price |
|---|---|---|
| **Chevrolet** | | |
| CMA-SUANTPF | 2000-02 Silverado<br>2000-05 Suburban | $24.95 |
| CMA-AVANTPF | 2003-07 Silverado<br>2004-06 Avalanche | $24.95 |
| CMA-CVANTPF | 2007-13 Silverado, Avalanche<br>2007-14 Suburban, Tahoe | $24.95 |
| CMA-CV2ANTNCG | 2014-16 Silverado | $24.95 |
| CMA-SU2ANTNCG | 2015-16 Suburban, Tahoe | $24.95 |
| **Dodge** | | |
| CMA-DGANTPF | 2002-08 Ram 1500-3500 | $24.95 |
| CMA-DG2ANTPF | 2009-16 Ram 1500-5500 | $24.95 |
| **Ford** | | |
| CMA-FOANTPF | 2005-08 F-150 | $24.95 |
| CMA-FO2ANTPF | 2009-14 F-150, Expedition | $24.95 |
| CMA-FO3ANTNCG | 2015-16 F-150 | $24.95 |
| CMA-SDANTPF | 2005-10 F-Series Super Duty | $24.95 |
| CMA-SD2ANTNCG | 2011-16 F-Series Super Duty | $24.95 |
| CMA-DGANTPF | 2011-14 Explorer | $24.95 |
| CMA-EXANTNCG | 2015-16 Explorer | $24.95 |
| **GMC** | | |
| CMA-SUANTPF | 2001-06 Sierra | $24.95 |
| CMA-CVANTPF | 2007-13 Sierra 1500, Yukon, Denali<br>2007-14 Sierra 2500, 3500 | $24.95 |
| CMA-CV2ANTNCG | 2014-16 Sierra 1500<br>2015-16 Sierra 2500, 3500 | $24.95 |
| CMA-SU2ANTNCG | 2015-16 Yukon, Denali | $24.95 |
| **Toyota** | | |
| CMA-TYANTPF | 2007-12 Tundra | $24.95 |

**Mounting** - There are pros and cons of every antenna mounting location. A glass mount can be removed without leaving a trace, but may compromise antenna gain. Drilling a hole in your roof is the best call for performance, but then…you'll have a hole in your roof. In fact, simply moving your antenna from the front to the back of your vehicle can drastically affect your signal.

Don't hesitate to call us for advice—we have mounting solutions for any installation.

COMET™

## Mobile Antenna Mounts

You've invested a lot of time and money in your mobile antenna, now make sure it stays put with a genuine Comet Antenna Mount. Comet gives you several mounting options and many require no drilling, so there are no unsightly holes to cover up. Whatever your antenna size may be, there's a quality mount available for it. Some mounts come in kit form, complete with cable assemblies and connectors. Others allow you the freedom to choose how to connect your antenna.

Drive safe and operate freely, knowing your antenna is secured right where it's supposed to be, by choosing a Comet Antenna Mount.

| Part Number | Description | Base Type | Includes | Price |
|---|---|---|---|---|
| CMA-3D4M | Standard Mobile Lip-Mount Cable Assembly | UHF (SO-239) | Mount, 13' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $29.95 |
| CMA-3D4N | Standard Mobile Lip-Mount Cable Assembly | Type N | Mount, 13' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $32.95 |
| CMA-3D5M | Standard Mobile Lip-Mount Cable Assembly | UHF (SO-239) | Mount, 16.5' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $29.95 |
| CMA-5D4N | Mobile Mount Cable Assembly | Type N | Mount, 13' of Coax, O-Ring, Type N Cable Connectors | $34.95 |
| CMA-CK-3-3-8-24 | Deluxe Mobile Mount Cable Assembly | 3/8"-24 Receptacle | Mount, 16' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $42.95 |
| CMA-CK-3M | Deluxe Mobile Mount Cable Assembly | UHF (SO-239) | Mount, 9.75' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $35.95 |
| CMA-CK-3M5 | Deluxe Mobile Mount Cable Assembly | UHF (SO-239) | Mount, 16' of Coax, O-Ring, SO-239/PL-259 Cable Connectors | $42.95 |
| CMA-CK-3NMO | Deluxe Mobile Mount Cable Assembly | NMO | Mount, 9.75' of Coax, O-Ring, NMO/PL-259 Cable Connectors | $42.95 |
| CMA-CK-5N | Deluxe Mobile Mount Cable Assembly (for RS-730) | Type N | Mount, 16' of Coax, O-Ring, Type N Cable Connectors | $49.95 |
| CMA-CM-5M | Mobile Antenna Magnet Mount | UHF (SO-239) | Magnet Mount, Base, 13' of Coax, PL-259 Connectors, Rubber Boot | $24.95 |
| CMA-CP-5M | Mobile Antenna Adjustable Lip Mount | UHF (SO-239) | Mount, 16' of Coax, SO-239 and PL-259 Cable Connectors | $69.95 |
| CMA-CP-5NMO | Mobile Antenna Adjustable Lip Mount | NMO | Mount, 16' of Coax, NMO and PL-259 Cable Connectors | $69.95 |
| CMA-CR-5M | Standard Cable Assembly | UHF (SO-239) | Mount, 16' of Coax, SO-239 and PL-259 Cable Connectors | $21.95 |
| CMA-HD-5-3-8-24 | Mobile Antenna Adjustable Lip Mount | 3/8"-24 Receptacle | Mount, 16' of Coax, Rubber Pad, Set Screws, PL-259 Connector | $79.95 |
| CMA-HD-5M | Mobile Antenna Adjustable Lip Mount | UHF (SO-239) | RS-840 Bracket, CK-3M5 Cable Assembly | $79.95 |
| CMA-LD-5M | Mobile Antenna Small Adjustable Lip Mount | UHF (SO-239) | Mount, 16' of Coax, Rain Cap, SO-239/PL-259 Cable Connectors | $59.95 |
| CMA-MG-4N | Mobile Antenna Magnet Mount (2.5 GHz) | Type N | Magnet Mount, 13' of Coax, Rain Cap, Type N Cable Connector | $54.95 |
| CMA-RS-660U | Mobile Antenna Adjustable Roof Rack Mount | — | Mount (SO-239 Connector Required) | $37.95 |
| CMA-RS-520 | Mobile Antenna Light-Duty Adjustable Lip Mount | — | Mount (SO-239 Connector Required) | $29.95 |
| CMA-RS-720 | Mobile Antenna Med.-Duty Adjustable Lip Mount | — | Mount (SO-239 Connector Required) | $29.95 |
| CMA-RS-720NMO | Mobile Antenna Med.-Duty Adjustable Lip Mount | — | Mount (NMO Connector Required) | $29.95 |
| CMA-RS-730 | Mobile Antenna Heavy-Duty Adjustable Lip Mount | — | Mount (Connector Required) | $32.95 |
| CMA-RS-840 | Mobile Antenna Heavy-Duty Adjustable Lip Mount | — | Mount (Connector Required) | $39.95 |

DIAMOND ANTENNA

## Magnet Mounts

DMN-K702M

A magnet mount that stays put! These deluxe mounts feature powerful magnets housed in a heavy four to six inch diameter base. The deluxe model can even hold antennas up to 50 inches tall. If you need a magnet mount that you can set-and-forget, Diamond gives you plenty of choices.

| | | |
|---|---|---|
| DMN-DPK4NM-N | Magnet Mount, 13' Coax, Type N, for 45" Antenna Max | **$54.95** |
| DMN-K702M | Magnet Mount, Deluxe Low-Profile, PL-259, for 50" Antenna Max | **$49.95** |
| DMN-SPM35 | Magnet Mount, 13' Coax, PL-259, for 45" Antenna Max | **$44.95** |
| DMN-SPMNMO | Magnet Mount, 13' Coax, NMO, for 45" Antenna Max | **$49.95** |

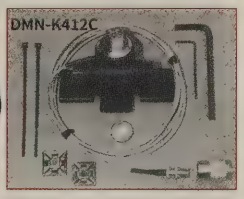
## CRM Mirror and Luggage Rack Mount

It's a beautifully simple right-right angle bracket with a U-bolt that creates a proven, secure attachment point for mirrors, racks or anything made from tubing up to 1 1/16" OD The mount is stainless steel to withstand years of outdoor abuse. It has a 5/8" hole for your UHF connector.

| | | |
|---|---|---|
| DMN-CRM | CRM Mirror and Luggage Rack Mount | **$16.95** |

## K412 Series Trunk and Hatchback Mounts

DMN-K412SNMO


DMN-K412C

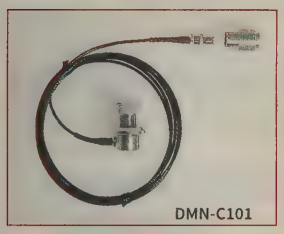
These mounts are similar to Diamond's K400 series, but are tailored for medium-duty applications. K412 Series Trunk and Hatchback mounts are perfect for medium-sized HF antennas under 45 inches.

| | | |
|---|---|---|
| DMN-K412C | K412 Mount, 6.6' Coax, SO-239 Base/Mini UHF Cable Connector | **$59.95** |
| DMN-K412CNMO | K412 Mount, 6.6' Coax, NMO Base/Mini UHF Cable Connector | **$59.95** |
| DMN-K412S | K412 Mount, 13.6' Coax, SO-239 Base/SMA Male Cable Connector | **$69.95** |
| DMN-K412SNMO | K412 Mount, 13.6' Coax, NMO Base/SMA Male Cable Connector | **$69.95** |

## Weather Cap

Keep your exposed SO-239 connector free of corrosion and debris, and ensure that your antenna mount is always ready when you need it. It's great to use when you remove your antenna before going through a car wash.

| | | |
|---|---|---|
| DMN-31005 | Weather Cap | **$3.35** |


DMN-C101

DMN-C213SMA

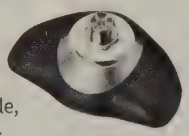
DMN-C110

## Hole Mount Cable Assemblies

Whether used as stand-alone antenna mounts or cable extensions, these assemblies will help you create a clean installation. They feature slim 1/8 inch diameter PTFE coax and mini UHF connectors, allowing you to easily thread these mounts through holes, between panels and around corners.

| | | |
|---|---|---|
| DMN-C101 | 6.5' Coax, SO-239 Base/Mini UHF Cable Connector | **$37.95** |
| DMN-C10138CKIT | 6.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector | **$44.95** |
| DMN-C101NMO | 6.5' Coax, NMO/Mini UHF Cable Connector | **$37.95** |
| DMN-C211 | 6.5' Coax, SO-239/Mini UHF Cable Connector, C110 Ext. Cable | **$49.95** |
| DMN-C213SMA | 13.6' Coax, SO-239/SMA Male Cable Connector | **$44.95** |
| DMN-C213SNMO | 13.6' Coax, NMO/SMA Male Cable Connector | **$45.95** |
| DMN-C110 | 10' Extension Cable, Mini UHF Male/Female Connectors | **$19.95** |

## Heavy-Duty Trunk Mounts


DMN-K600M

If you're running a high-gain VHF/UHF mobile antenna, Heavy Duty Trunk Mounts are perfect for your setup. With an adjustable range of 0-9 degrees, a strong screw-type installation and weatherproof construction, these are versatile, worry-free mounts. The aerodynamic styling looks great, too.

| | | |
|---|---|---|
| DMN-K600M | Mount, 10' Coax, SO-239 Base/PL-259 Cable Connector | **$59.95** |
| DMN-K600S | Mount, 10' Coax, SO-239 Base/SMA Male Cable Connector; | **$62.95** |

DMN-K9000LRM

DIAMOND ANTENNA

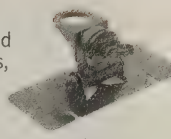
## K9000 Series Mobile Motor Drive Mounts

DMN-K9000LRMO

Raise and lower your dual-band mobile antenna with the touch of a button. A 12V cigarette lighter plug-powered manual switch allows you to tilt your antenna up and down—perfect for garages or low overpasses. A 20 foot long DC power cord is included to complete your setup. These mounts are compatible with antennas that are under 45 inches tall, and don't require a ground. They are designed to mount securely to your luggage rack/tubing or trunk/hatch lip.

| | | |
|---|---|---|
| DMN-K9000LRM | Mobile Drive Mount for Small, Tubular Luggage Rack | **$119.95** |
| DMN-K9000LRMO | Mobile Drive Mount for Large, Oversize Luggage Rack | **$119.95** |
| DMN-K9000TM | Mobile Drive Mount for Trunk Lid or Hatchback | **$119.95** |

## HRKS Adhesive Backed Antenna Mount



If you don't want to drill a hole or put a mag-mount on your car, Diamond offers an adhesive backed antenna mount that securely adheres to glass, steel, fiberglass—virtually any smooth, flat surface. When it's time to remove the mount, just use some fishing line to "saw" it off without a trace. This two-piece adjustable mount has an SO-239 antenna base, 13.6 feet of coax ending in an SMA male connector and an SMA female to PL-259 adapter.

| | | |
|---|---|---|
| DMN-HRKS | Adhesive Backed Antenna Mount | **$69.95** |

## K400 Series Trunk and Hatchback Mounts

DMN-K400

DMN-K400S

These K400 Series deluxe heavy-duty mounts are ideal for large VHF/UHF and medium-sized HF antennas—including many popular screwdriver antennas. The strong mounts are adjustable on two axis. Install them vertically or horizontally without drilling any holes in your vehicle's body.

| | | |
|---|---|---|
| DMN-K400 | Trunk/Hatchback Mount Only | **$39.95** |
| **K400 Mounts** | | |
| DMN-K400-3-8C | 6.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector | **$73.95** |
| DMN-K400C | 6.5' Coax, SO-239 Base/Mini UHF Cable Connector | **$73.95** |
| DMN-K400CNMO | 6.5' Coax, NMO Base/Mini UHF Cable Connector | **$73.95** |
| DMN-K400S | 13.5' Coax, SO-239 Base/SMA Male Cable Connector | **$79.95** |
| DMN-K400SNMO | 13.5' Coax, NMO Base/SMA Male Cable Connector | **$79.95** |
| DMN-K400-3-8C2 | 13.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector | **$79.95** |

## K515, K540 and K550 Series Luggage Rack Mounts

DMN-K540

DMN-K515SNMO

DMN-K550KM

Ideal for your vehicle's luggage rack, these mounts clamp securely for a stable connection. The K540 Series can even clamp to your long mirror arm or any 1/2 to 7/8 inch tubing. Every model includes a handy fold-down feature, so you can lower your antenna for garages and parking decks. All three series are well suited for lightweight and medium-sized antennas. Diamond's K515 Series is recommended for antennas under 50 inches tall, and the K550 Series is great for antennas under 45 inches.

| | | |
|---|---|---|
| DMN-K515S | K515 Mount, 13.6' Coax, SO-239 Base/SMA Male Cable Connector | **$69.95** |
| DMN-K515SNMO | K515 Mount, 13.6' Coax, NMO Base/SMA Male Cable Connector | **$69.95** |
| DMN-K540 | Luggage Rack Mount | **$36.95** |
| DMN-K540KM | K540 Mount, 13' Coax, SO-239 Base/PL-259 Cable Connector | **$59.95** |
| DMN-K550 | Luggage Rack Mount | **$44.95** |
| DMN-K550KM | K550 Mount, 13' Coax, SO-239 Base/PL-259 Cable Connector | **$69.95** |

DX ENGINEERING

### Utility Enclosure Package

The Utility Enclosure Package is a high-impact thermoplastic enclosure ideal for outdoor mounting of all types of lightning protectors or other equipment. Its weathertight design protects the components from rain and direct water spray. It resists degradation from environmental contaminants, chemical fertilizers and insecticide sprays that can ruin metallic housings.

The thermoplastic housing and wire entrance grommet material are fire retardant and UV stabilized. The enclosure can be painted with latex or oil base paints if needed to blend it in with its location. The kit includes an aluminum mounting plate for attaching your lightning protectors and ground strap.

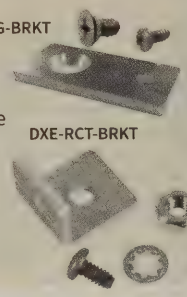
Mounting hardware, mounting plate and four weathertight large feed-through grommets for RG-213 and LMR-400 sized cable are included.
Optional feed-through grommets for smaller cables are available.

| | | |
|---|---|---|
| DXE-UE-2P | Utility Enclosure Package, 13" W x 14" H x 4" D | $54.95 |
| DXE-CFT-1P | Large Cable Feed-Through Grommets, Pack of 6 | $15.95 |
| DXE-CFT-2P | Small Cable Feed-Through Grommets, Pack of 6 | $15.95 |

### Flange Mounting Brackets

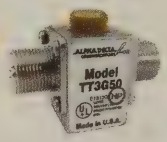
These brackets convert many popular stud-mount lightning protectors, like Alpha Delta's Coaxial Surge Protector, to a flange mount. The conversion makes them easier to mount inside DX Engineering's UE-2P Utility Enclosure. Hardware is included.

| | | |
|---|---|---|
| DXE-ATT3G-BRKT | Flange Mounting Bracket, Straight | $4.95 |
| DXE-RCT-BRKT | Flange Mounting Bracket, Right Angle | $6.95 |




### Transi-Trap Broadband Coaxial Surge Protectors

ALPHA DELTA COMMUNICATIONS, INC.




These gas surge arrestors protect sensitive equipment from the excessive voltage and current caused by static buildup or a lightning strike. The 50 Ω DC voltage pass-through design is perfect if you're using coaxial cable to carry both RF and DC voltage, like in an antenna switch. These protectors use a replaceable Arc-Plug™ cartridge that you can change in the field without tools. They feature a 1/4"-20 mounting stud for easy installation.

The Defense Logistics Agency has assigned National Stock Number (NSN) 5920 01 5470278 to the model TT3G50 Coax Surge Protector and NSN 5325 01 5466841 to the 3G50 Arc-Plug cartridge for use in all U.S. Military and NATO applications worldwide.

| Part Number | Mount | Connector | Frequency | Power Handling | Price |
|---|---|---|---|---|---|
| ALF-ATT3G50 | Stud | Type N | 3 GHz | 200 Watts | $61.95 |
| ALF-ATT3G50HP | Stud | Type N | 3 GHz | 2,000 Watts | $61.95 |
| ALF-ATT3G50F | Stud | F Connector | 3 GHz | 200 Watts | $61.95 |
| ALF-ATT3G50FHP | Stud | F Connector | 3 GHz | 2,000 Watts | $61.95 |
| ALF-ATT3G50U | Stud | SO-239 | 500 MHz | 200 Watts | $51.95 |
| ALF-ATT3G50UHP | Stud | SO-239 | 500 MHz | 2,000 Watts | $51.95 |
| ALF-AT3G50UBXL | Bulkhead | SO-239 | 500 MHz | 200 Watts | $61.95 |
| ALF-ATT3G50UBHP | Bulkhead | SO-239 | 500 MHz | 2,000 Watts | $61.95 |
| ALF-AT3G50UM90 | 90° | SO-239 & PL-259 | 500 MHz | 200 Watts | $64.95 |
| ALF-AT3G50UM90HP | 90° | SO-239 & PL-259 | 500 MHz | 2,000 Watts | $64.95 |
| ALF-3G50 | Replacement Arc-Plug | | | 200 Watts | $14.95 |
| ALF-3G50HP | Replacement Arc-Plug | | | 2,000 Watts | $14.95 |

DX ENGINEERING New!

### Surge Arrestors

Cheap insurance against harmful voltage spikes—DX Engineering's Surge Arrestors offer rock-solid reliability while withstanding multiple lightning strikes. They feature a DC blocked high-speed gas tube design that passes only RF frequencies. That means there is no continuity between connector center pins, which effectively prevents excessive voltage from entering your radio and equipment. They're compatible with all RF systems, except those sending DC power through the coaxial cable (bias-tee). The Surge Arrestors cover 1.5 to 700 MHz and handle up to 2,000 watts.

DXE-ISBH1-NF2K

DXE-ISFL1-UF2K

| Part Number | Mount | Connector | Price |
|---|---|---|---|
| DXE-ISBH1-NF2K | Bulkhead | Type N | $59.95 |
| DXE-ISBH1-UF2K | Bulkhead | SO-239 | $69.95 |
| DXE-ISFL1-NF2K | Flange | Type N | $59.95 |
| DXE-ISFL1-UF2K | Flange | SO-239 | $59.95 |

### Broadband Coaxial Lightning Protectors

PolyPhaser CORPORATION

These 50 Ω, DC-blocked protectors are great for general, single transmitter use in the 1.5 to 700 MHz frequency ranges. Available with either a bulkhead or flange mount, Polyphaser's Lightning Protectors use a gas tube design that has no DC continuity between the center pins. Polyphaser's Multi-Strike products pass all RF frequencies while blocking all DC—offering excellent protection from voltage spikes.

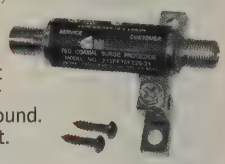
| | | |
|---|---|---|
| PPR-IS-50UX-C0 | UHF Female, Flange, 2,000 W, 1.5-700 MHz | $68.95 |
| PPR-IS-50NX-C0 | Type N Female, Flange, 2,000 W, 1.5-700 MHz | $62.95 |
| PPR-IS-B50LN-C0 | Type N Female, Bulkhead, 2,000 W, 1.5-700 MHz | $68.95 |
| PPR-IS-B50LU-C0 | UHF Female, Bulkhead, 2,000 W, 1.5-700 MHz | $71.95 |
| PPR-IS-B50HU-C0 | UHF Female, Bulkhead, 3,000 W, 1.5-700 MHz | $77.95 |

DIAMOND ANTENNA

| Part Number | Description | Price |
|---|---|---|
| **Lightning Arrestors** | | |
| DMN-SP3000 | DC-3000 MHz, 200 W Max, Type N Female to Type N Female | $34.95 |
| DMN-SP3000P | DC-3000 MHz, 400 W Max, Type N Female to Type N Male | $41.95 |
| DMN-SP3000W | DC-3000 MHz, Waterproof, Type N Female to Type N Female | $41.95 |
| **Lightning Surge Protectors** | | |
| DMN-SP1000 | DC-1000 MHz, 400 W Max, UHF Female to UHF Female | $31.95 |
| DMN-SP1000PW | DC-1000 MHz, 400 W Max, UHF Female to UHF Male | $34.95 |

### Receive Feedline Surge Protector

DX ENGINEERING

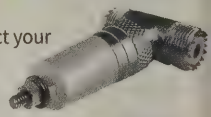


This unique in-line design is impedance matched to 75 Ω and virtually transparent to both analog and bi-directional signals from DC to 1.0 GHz. The patented and proprietary gas tube construction has an integral failshort mechanism for a power-cross condition that shunts both your cable's center conductor and sheath for a common path to ground. The protection element resets after each over-voltage incident.

| | | |
|---|---|---|
| DXE-RLP-75FF | Receive Feedline Surge Protector, 75 Ω, DC Pass, F Connectors | $13.95 |

### LT Coaxial Surge Protector

ALPHA DELTA COMMUNICATIONS, INC.



Don't live in fear of lightning strikes. This unit is designed to protect your delicate and expensive equipment from lightning-induced voltage spikes. It covers frequencies from DC to 30 MHz and handles 200 watts. In-line installation is easy with two SO-239 connectors.

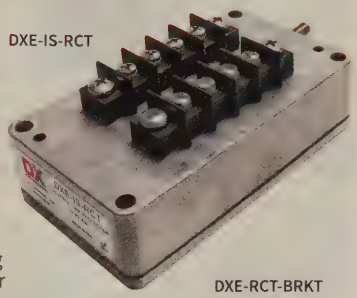
| | | |
|---|---|---|
| ALF-LT | LT Coaxial Surge Protector | $29.95 |
| ALF-LT-ARC-PLUG | Replacement Arc Plug® for ALF-LT | $17.95 |

### Hum's the Word.

A proper ground system is absolutely crucial in helping to squash out electrical noise in your Ham station. Don't just address grounding at your tower or antenna. Make sure you've got your shack gear all connected to a single point ground too. Check out page 106 for Grounding & Lightning Protection.

DX ENGINEERING

### Rotator Control Line Protector


DXE-IS-RCT

Protect your control lines using this unit's eight individually shunt-protected terminals. When the voltage spikes above 82 Vdc in either polarity, the Rotator Control Line Protector automatically shunts the circuit to ground using an MOV for maximum surge protection.

The protector is housed in a weatherproof metal enclosure with an integrated mounting stud, which makes it easy to attach to a tower leg or ground rod. Terminal gaskets help prevent any moisture from entering the housing.

DXE-RCT-BRKT

| | | |
|---|---|---|
| DXE-IS-RCT | Rotator Control Line Protector | $169.95 |
| DXE-RCT-BRKT | Right Angle Flange Mounting Bracket | $6.95 |

INRAD international radio — New!

### Antenna Disconnect Actuator

INRAD's clever Antenna Disconnect Actuator (DCA) automatically disconnects your antenna every time you power-down your radio. When DC is off, the antenna's signal and ground are shorted together and grounded, and both are disconnected from the radio. That will prevent static-discharge, surges and lightning-strikes from damaging your gear. Simply connect the DCA to your radio, amp, or tuner output, in-line with the antenna, plug in the power supply and it's ready to go. The DCA covers 1.8-50 MHz and handles 1,500 watts.

| | | |
|---|---|---|
| INR-DCA | Antenna Disconnect Actuator | $99.95 |

DX ENGINEERING

### ECLS-Series Band Clamps with Stud

The ECLS-Series clamps feature a 3/4 inch long, 10-24 welded stud for easy connection of feed wire, baluns, current chokes, etc. to tubular elements. Stainless steel hardware included.

| Band Clamps with Stud | | Pack of 2 |
|---|---|---|
| DXE-ECLS-050 | 0.500" OD Tube | $12.95 |
| DXE-ECLS-062 | 0.625" OD Tube | $12.95 |
| DXE-ECLS-075 | 0.750" OD Tube | $12.95 |
| DXE-ECLS-087 | 0.875" OD Tube | $12.95 |
| DXE-ECLS-100 | 1.000" OD Tube | $12.95 |
| DXE-ECLS-125 | 1.250" OD Tube | $12.95 |
| DXE-ECLS-150 | 1.500" OD Tube | $12.95 |
| DXE-ECLS-175 | 1.750" OD Tube | $12.95 |
| DXE-ECLS-200 | 2.000" OD Tube | $12.95 |
| DXE-ECLS-225 | 2.250" OD Tube | $12.95 |
| DXE-ECLS-250 | 2.500" OD Tube | $12.95 |
| DXE-ECLS-275 | 2.750" OD Tube | $12.95 |
| DXE-ECLS-300 | 3.000" OD Tube | $13.95 |
| DXE-ECLS-325 | 3.250" OD Tube | $13.95 |

DX ENGINEERING

### Exhaust System Grounding Kit

Many modern vehicles have separate fuel injectors and spark coils for each cylinder. These units can create substantial pulses on the vehicle wiring. Because the exhaust system is bolted directly to the engine and supported by insulated mounts, it can be excited just like an antenna and radiate pulse noise. By using one of our Exhaust Grounding Kits, you may eliminate that last bit of stubborn noise in your mobile installation. The kit includes a stainless steel saddle clamp and stainless steel hardware.

| | | |
|---|---|---|
| DXE-EGK-200 | Grounding Kit for 2" Exhaust Pipe | $24.95 |
| DXE-EGK-225 | Grounding Kit for 2.25" Exhaust Pipe | $24.95 |
| DXE-EGK-250 | Grounding Kit for 2.5" Exhaust Pipe | $24.95 |
| DXE-EGK-300 | Grounding Kit for 3" Exhaust Pipe | $27.95 |

### SS-30™ Pure Copper Anti-Seize Lubricant

JET-LUBE

Use Jet-Lube on your taps, lugs, aluminum tubing joints, copper grounding straps, clamps, stainless steel hardware and virtually anywhere you need excellent electrical and RF conductivity. Jet-Lube prevents oxidization and corrosion, which makes it an effective thread lubricant and conductive anti-oxidant termination compound. Its superior anti-seize properties make it a must-have when making metal-to-metal connections. Jet-Lube is safe for aluminum, copper, bronze, steel, tin and galvanized hardware.

| | | |
|---|---|---|
| JTL-12555 | Jet-Lube, 0.25 Lb. Brush-Top Can | $13.95 |
| JTL-12502 | Jet-Lube, 0.50 Lb. Brush-Top Can | $26.95 |

DX ENGINEERING

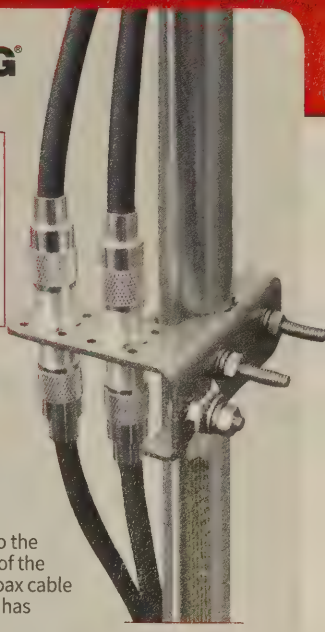
### Coaxial Cable Grounding Brackets

DXE-CGB-150

DXE-1023-2

The CGB-Series Coax Grounding Brackets are designed for grounding coaxial cable shields. The stainless steel bracket is supplied with a stainless steel V-bolt and hardware in your choice of two sizes for a solid connection to a tower leg or mast. Each bracket has holes for bulkhead connectors or chassis mount connectors, listed below.

The Grounding Bracket is an ideal junction point for the coax pigtails that form the rotor loop to connect to the downleads. The bracket can also be used at the base of the tower to provide a solid grounding point before the coax cable is routed away from the grounded tower. The bracket has serrated teeth to bite through paint and corrosion.


Typical Installation—Bracket and Connectors Shown with Optional Parts.

| | | |
|---|---|---|
| DXE-CGB-200 | Grounding Bracket, Fits 1" to 2" OD Tube | $15.95 |
| DXE-CGB-150 | Grounding Bracket, Fits 1" to 1.50" OD Tube | $15.95 |
| DXE-363-SST | SO-239, Bulkhead Connector with Socket Hardware | $7.45 |
| DXE-UHF-FDFB-KIT | SecureMount™ Bulkhead Connector and Hardware Kit | $15.40 |
| DXE-1023-2 | Type N Double Female Bulkhead Adapter, Pack of 2 | $17.90 |

DXE-UHF-FDFB-KIT

### Ground Braid Assemblies

DX Engineering Ground Strap is available preassembled with lugs for both #10 and 1/4 inch bolt sizes. A grounding strap is ideal for grounding a rig, amp, etc. to a copper strip running behind the desk; the strip becomes the central ground point for the equipment. This central ground can be routed away with heavy copper strap to join any other similarly protected branches for single point grounding (SPG) lightning protection.

Other possible uses include noise reduction by grounding a vehicle exhaust, establishing a connection between a radial plate, balun and a vertical antenna to keep current off of the feedline, and any grounding application where a reliable connection is needed.

| Assemblies with 1/2 Inch Wide Braided Strap | | |
|---|---|---|
| DXE-TCB05-RT01 | #10 Ring Lugs, 1' | $7.95 |
| DXE-TCB05-RT03 | #10 Ring Lugs, 3' | $8.95 |
| DXE-TCB05-RT05 | #10 Ring Lugs, 5' | $9.95 |
| DXE-TCB05-RT10 | #10 Ring Lugs, 10' | $12.95 |
| DXE-TCB05-RT18I | 1/4" Ring Lugs, 18" | $8.95 |
| DXE-TCB05-RT24I | 1/4" Ring Lugs, 2' | $9.95 |
| DXE-TCB05-RT36I | 1/4" Ring Lugs, 3' | $10.95 |
| **3/4 Inch Wide Braided Strap** | | |
| DXE-TCB075-RT18I | 1/4" Ring Lugs, 18" | $8.95 |
| DXE-TCB075-RT24I | 1/4" Ring Lugs, 2' | $9.95 |
| DXE-TCB075-RT03 | 1/4" Ring Lugs, 3' | $10.95 |
| **Assemblies with 1 Inch Wide Braided Strap** | | |
| DXE-TCB10-RT01 | 1/4" Ring Lugs, 1' | $8.95 |
| DXE-TCB10-RT18I | 1/4" Ring Lugs, 18" | $9.95 |
| DXE-TCB10-RT24I | 1/4" Ring Lugs, 2' | $10.95 |
| DXE-TCB10-RT03 | 1/4" Ring Lugs, 3' | $11.95 |
| DXE-TCB10-RT05 | 1/4" Ring Lugs, 5' | $15.95 |
| DXE-TCB10-RT10 | 1/4" Ring Lugs, 10' | $21.95 |

DXE-TCB05-RT03
DXE-TCB10-RT18I
DXE-TCB10-RT24I
DXE-TCB10-RT03

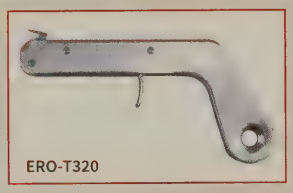
### Ground Strap

DX Engineering offers quality tinned copper braid in 5 widths for grounding applications. It is sold per foot to accommodate almost any project. Very long per-foot lengths may not be continuous—contact Customer Service to discuss your length needs if continuous length is required.

The strap is available in these sizes:

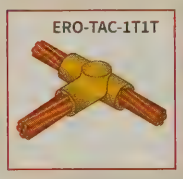
| | | |
|---|---|---|
| DXE-TCB-038 | 3/8" wide x 1/32" thick | per foot $0.45 |
| DXE-TCB-050 | 1/2" wide x .030" thick | per foot $0.60 |
| DXE-TCB-063 | 5/8" wide x .030" thick | per foot $0.80 |
| DXE-TCB-075 | 3/4" wide x .040" thick | per foot $1.10 |
| DXE-TCB-100 | 1" wide x .045" thick | per foot $1.25 |

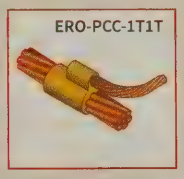
## CADWELD® Exothermic Welding System

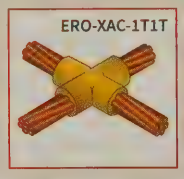

ERO-T320

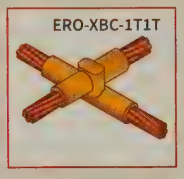
The ideal way to secure a copper wire to a ground rod is by welding it securely to the top. The problem is, many of us don't have easy access to a welder. Erico's CADWELD process lets you make copper-to-copper or copper-to-steel electrical connections without the need for outside heat or power sources. The result is a permanent bond that won't loosen or corrode over time. Though it's relatively straightforward, we strongly recommend that you read and understand the CADWELD process before ordering. More One Shot modules available at DXEngineering.com.

| Part Number | Wire Connections | For Rod OD | Fits AWG (Stranded) | Fits AWG (Solid) | Price |
|---|---|---|---|---|---|
| **CADWELD One Shot Modules** | | | | | |
| ERO-GR1-141G | 1 | 1/2" | 8 | 8, 6 | $8.50 |
| ERO-GR1-141L | 1 | 1/2" | 6,4 | 4, 3 | $8.50 |
| ERO-GR1-161G | 1 | 5/8" | 8 | 8, 6 | $8.50 |
| ERO-GR1-161L | 1 | 5/8" | 6, 4 | 4, 3 | $8.50 |
| ERO-GR1-161V | 1 | 5/8" | 3, 2 | 2, 1 | $9.85 |
| ERO-GT1-141G | 2 | 1/2" | 8 | 8, 6 | $9.65 |
| ERO-GT1-141L | 2 | 1/2" | 6, 4 | 4, 3 | $9.65 |
| ERO-GT1-141V | 2 | 1/2" | 3, 2 | 2, 1 | $11.35 |
| ERO-GT1-161G | 2 | 5/8" | 8 | 8, 6 | $9.85 |
| ERO-GT1-161L | 2 | 5/8" | 6, 4 | 4, 3 | $9.85 |
| ERO-GT1-161V | 2 | 5/8" | 3, 2 | 2, 1 | $11.35 |
| **CADWELD Mold to Ground Bar** | | | | | |
| ERO-GRT-14A1T | 1 | 1/2" | — | 2 | $83.95 |
| ERO-GRC-161T | 1 | 5/8" | — | 2 | $128.95 |
| ERO-GRC-181T | 1 | 3/4" | — | 2 | $128.95 |
| **CADWELD Molds, General Use** | | | | | |
| ERO-TAC-1T1T | Tee | | | 2 | $128.95 |
| ERO-PCC-1T1T | Flyway | | | 2 | $128.95 |
| ERO-XAC-1T1T | X | | | 2 | $128.95 |
| ERO-XBC-1T1T | Stacked X | | | 2 | $128.95 |
| ERO-LAC-1TCE | Cable to Lug/Bus Bar | | | 2 | $128.95 |
| ERO-T320 | Specialized Flint Igniter for CADWELD System | | | | $9.75 |


ERO-TAC-1T1T

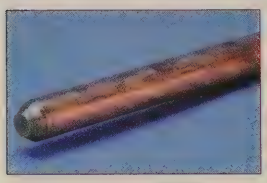

ERO-PCC-1T1T


ERO-XAC-1T1T


ERO-XBC-1T1T

## Copper-Bonded Ground Rods

Properly ground your station with these 99.9% pure electrolytic copper coated ground rods. The rods feature a high carbon steel core to ensure that they won't bend or distort while being driven into the Earth.



| Part Number | OD | Length | Price |
|---|---|---|---|
| ERO-613840 | 0.358" | 4' | $7.55 |
| ERO-613852 | 0.358" | 5' | $9.15 |
| ERO-613880 | 0.358" | 8' | $13.55 |
| ERO-611360 | 0.504" | 6' | $13.95 |
| ERO-615840 | 0.560" | 4' | $10.45 |
| ERO-615880 | 0.560" | 8' | $18.25 |
| ERO-615800 | 0.560" | 10' | $23.55 |
| ERO-615812 | 0.560" | 12' | $35.95 |
| ERO-613460 | 0.681" | 6' | $22.95 |
| ERO-613480 | 0.681" | 8' | $29.95 |

## Copper Ground Bus Wall Mount

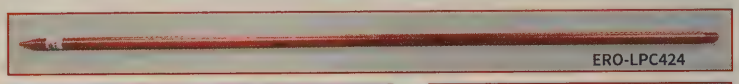
As the foundation of your single-point ground system, DX Engineering's Copper Ground Bus Wall Mount is made from heavy-gauge tempered copper. That means it is strong enough to handle the weight of long cable runs. Can be installed indoors or outdoors, and include mounting hardware. The bracket has plenty of room for multiple PolyPhaser flange-mount or Alpha-Delta TT/ATT3G50 series coaxial surge protectors, find full dimensions at DXEngineering.com.

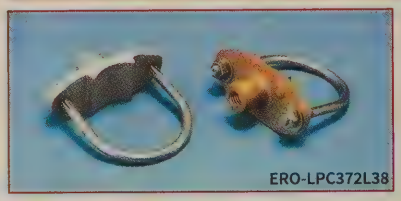
DXE-GBWM-W Copper Ground Bus Wall Mount, 10.8" ..... $54.95

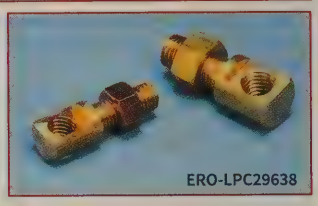
## Copper Ground Bar

Make sure all your grounds are at equal potential. A near-zero voltage differential ensures a uniform path to ground, which helps protect you and your equipment. This 1/4" thick bar is an excellent start to your single-point grounding system.

ERO-EGBA14210JF Copper Ground Bar, 2" x 10" ..... $49.95


ERO-LPC424


ERO-LPC372L38


ERO-LPC29638

## Air Terminals, Bases and Extension Adapters

Also known as lightning rods, Air Terminals help shunt the energy from a lightning strike directly to the ground. They can potentially protect your radio equipment from the massive power surge of a nearby lightning hit.

Erico's 3/4" OD Air Terminals screw into a correlating Air Terminal Base. The bases clamp to any 1.5"-2.5" OD horizontal or vertical pipe. Optional Right Angle Extension Adapters can add an extra 2" offset to allow for better positioning of each air terminal.

**Air Terminals**

ERO-LPC424 Air Terminal, 48" High, 5/8" UNC Thread ..... $139.95
ERO-LPC428 Air Terminal, 96" High, 5/8" UNC Thread ..... $229.95

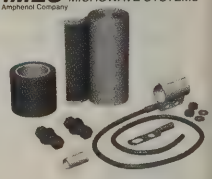
**Bases**

ERO-LPC372L38 Air Terminal Base, 3/8" UNC Thread ..... $29.95
ERO-LPC372L12 Air Terminal Base, 1/2" UNC Thread ..... $29.95
ERO-LPC372L58 Air Terminal Base, 5/8" UNC Thread ..... $29.95

**Right Angle Extension Adapters**

ERO-LPC29638 Right Angle Extension Adapter, 3/8" UNC Thread ..... $39.95
ERO-LPC29612 Right Angle Extension Adapter, 1/2" UNC Thread ..... $35.95
ERO-LPC29658 Right Angle Extension Adapter, 5/8" UNC Thread ..... $49.95

## Mid-Span Coaxial Grounding Kits



Easily install a ground lug virtually anywhere along your coaxial cable run. These kits are a great solution if you want to ground your cable in an atypical location. Simply strip back the cable jacket, tighten down the pre-formed metal strap and secure your ground lugs. Make sure to weatherproof your grounded section after you've installed one of these kits to prevent water ingress into the cable. Check out the Cleaning and Weatherproofing section of this catalog for tape and other supplies.

TMV-GK-S400TT Mid-Span Coaxial Grounding Kit, for LMR-400 Size Cable ..... $27.95
TMV-GK-S600TT Mid-Span Coaxial Grounding Kit, for LMR-600 Size Cable ..... $27.95

## Ground Clamps and Connectors

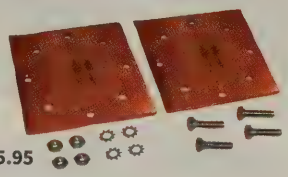
ERO-CP34

Solid mechanical connections are critical in a grounding system. These clamps aren't your basic hardware store variety; they are specifically made for precision electrical applications.

ERO-CP34 Ground Clamp, 1/2"-3/4" Rod to Cable, Bronze ..... $3.00
ERO-CP58 Ground Clamp, 1/2"-5/8" Rod to Cable, Bronze ..... $3.00
ERO-MBNC82 Mesh Bonding Network Connector, 8 AWG ..... $5.00

DX ENGINEERING

### Copper Strap to Copper Strap Clamp

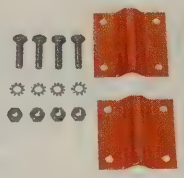


The DXE-MSC-3 bonding clamp is ideal for bonding two copper straps together, for extending an existing run or to add drops to equipment. It accepts ground straps from 1.5 to 3 inches and includes 18-8 stainless steel hardware.

DXE-MSC-3 Multi-Strap Clamp ..... **$55.95**

DX ENGINEERING

### Copper Strap to Copper Ground Rod Clamp



This clamp bonds a 0.625 inch ground rod to copper strap. 18-8 stainless steel hardware included.

DXE-58R-112S-2 Strap to Copper Ground Rod Clamp ..... **$39.95**

DX ENGINEERING

### Ground Wire to Copper Ground Rods

The DX Engineering J series clamps are used to connect ground wire to copper ground rods sized from 0.625 inch to 2.25 inches. They accept wire ranging from #2 stranded to #10 solid. These clamps are made of cast bronze and include 18-8 stainless steel hardware.

DXE-J-1 Wire to Rod Transition Clamp, 0.625" to 1.25" ..... **$15.95**

DXE-J-2 Wire to Rod Transition Clamp, 1.25" to 2.25" ..... **$22.95**

PolyPhaser CORPORATION

### Coax Shield Ground Kits

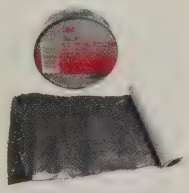
These kits provide a low inductance path for proper ground contact between a round member made from copper, brass, aluminum, tin or steel to corresponding copper, brass, aluminum, tin or steel grounding material. Examples: grounding the coax shield as the coax leaves the tower or connecting a round tower leg to the ground system. Three kits are available for various combinations of shield material to grounding material, and they fit coax shield or tower leg diameters from 1/4 inch to 2 1/8 inches. These kits include a perforated strap, an adjustable angle, 24 inch long tail strap, weatherproofing kit and all stainless steel brackets and hardware.

PPR-UNI-KIT-2CC Copper to Copper Ground Kit ..... **$99.95**

PPR-UNI-KIT-2CT Copper to Aluminum Ground Kit ..... **$99.95**

DX ENGINEERING

### Weatherproofing Kits



Don't overlook the importance of weatherproofing your connectors. Moisture can cause corrosion, which leads to arcing, shorts and other significant RFI and electrical issues. The basic kit includes self-adhesive weatherproofing material and 3M Tartan 1710 vinyl UV-resistant electrical tape. The Upgraded version uses professional grade Scotch Super 33+ tape, while our Ultimate version includes Super 88 electrical tape.

DXE-WK-1 Basic Weatherproofing Kit, Tartan Tape ..... **$9.95**

DXE-WK-2 Upgraded Weatherproofing Kit, Super 33+ Tape ..... **$17.55**

DXE-WK-3 Ultimate Weatherproofing Kit, Super 88 Tape ..... **$18.15**

### Copper Strap to Tower

DX ENGINEERING

The TK clamp series has a stainless steel plate to go between the copper strap and galvanized tower leg to prevent corrosion due to dissimilar metals. For use with tower leg diameters from 0.625 inches to 3.25 inches.

DXE-TK-1A Strap to Tower Leg Ground Clamp, 0.625" to 1.25" ..... **$8.95**

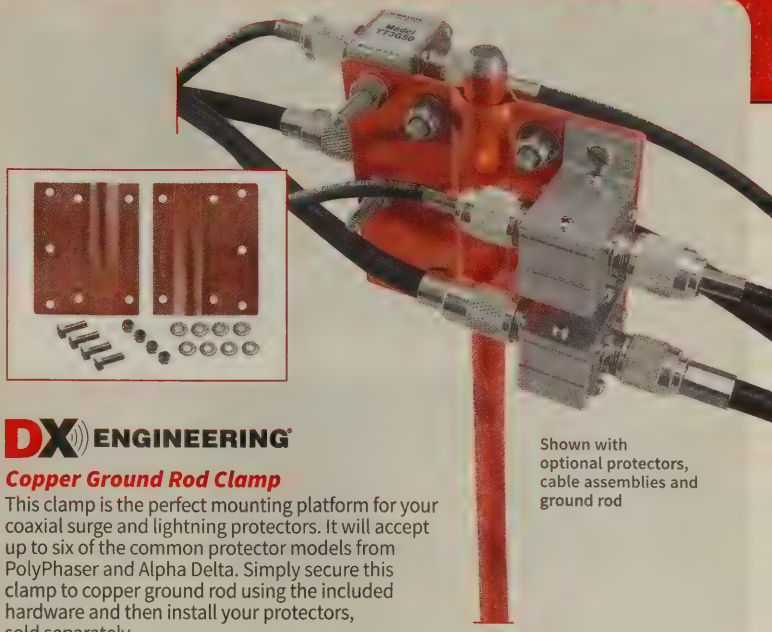
DXE-TK-2A Strap to Tower Leg Ground Clamp, 1.25" to 2.25" ..... **$8.95**

DXE-TK-3 Strap to Tower Leg Ground Clamp, 2.25" to 3.25" ..... **$8.95**

### Copper Cleaning Kit

Proper preparation of the copper surfaces and application of copper joint compound prior to bonding is essential to maintain the low resistance properties of the strap connection. The copper cleaning kit has everything needed to establish the bond. The kit includes a non-abrasive scrub pad, copper joint compound and complete instructions.

DXE-CCK Copper Cleaning Kit ..... **$19.95**



Shown with optional protectors, cable assemblies and ground rod

DX ENGINEERING

### Copper Ground Rod Clamp

This clamp is the perfect mounting platform for your coaxial surge and lightning protectors. It will accept up to six of the common protector models from PolyPhaser and Alpha Delta. Simply secure this clamp to copper ground rod using the included hardware and then install your protectors, sold separately.

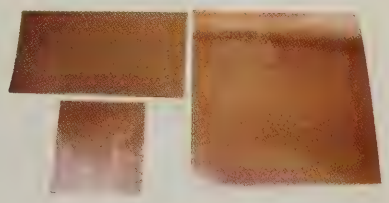
DXE-UCGC Copper Ground Clamp ..... **$48.95**

### Flexible Copper Grounding Strap

A critical part of a low inductance ground system, copper strap's larger surface area has lower inductance per foot than equivalent cross-section wire. Use it to tie equipment back to a common ground point. Copper strap should also be used to make a non-resonant counterpoise for towers located on mountaintops or other rocky terrain. The copper straps listed here are 2" wide. The copper straps are also available in 1/2", 1", 1.5", 3", 4" and 6" widths in 25', 50' and 100' lengths at DXEngineering.com.

| Part Number | Thickness | Length | Price |
|---|---|---|---|
| GCL-1120-025 | 0.012" | 25' | **$44.95** |
| GCL-1120-050 | 0.012" | 50' | **$73.95** |
| GCL-1120-100 | 0.012" | 100' | **$132.95** |
| GCL-1220-025 | 0.022" | 25' | **$65.95** |
| GCL-1220-050 | 0.022" | 50' | **$115.95** |
| GCL-1220-100 | 0.022" | 100' | **$214.95** |

### Flexible Copper Sheeting



Perfect for making Faraday shields, or for fabricating heat sinks, covers, ground busses, solder tabs and more. The 12" x 12" sheet is 0.022" thick.

GCL-3215 Flexible Copper Sheeting ..... **$15.95**

DX ENGINEERING

### Copper Grounding Plate Kit

The DXE-CU-SPGP provides a convenient means to mount multiple lightning protectors and tie them to a common ground. The plate is an 18 x 12 inch painted board with a 15 x 10 x 0.063 inch piece of copper mounted to it. The board should be mounted to wall studs set on 16 inch centers.

DXE-CU-SPGP Copper Grounding Plate Kit ..... **$299.95**

## ALINCO

ALO-DM-30T

New!

ALO-DM-330MVT

### Switching Mode Power Supplies

Alinco adjustable power supplies perfectly complement its radios, yet they're also excellent bench supplies for gear that needs a stable, clean DC power source. They feature a selectable volt/amp meter and a handy noise offset knob to let you move the switching noise to another frequency. These supplies also incorporate short circuit and current limiting protection.

The DM-330 models have a programmable pre-set voltage function that lets you store the most frequently used voltage in the memory for quick access. The DM-330MVT and DM-30T accept 120 Vac input voltage, for 220 Vac input power applications, check out the DM-30E.

Just announced at Hamvention® 2017, the new DM-430E is a compact, lightweight and high-powered switching power supply with Powerpoles® and an illuminated digital volt/amp meter.

| Part Number | Output | Peak Current | Display | Connections | Price |
|---|---|---|---|---|---|
| ALO-DM-30T | 9-15 Vdc | 30A | Digital | Binding Posts, Powerpoles | $149.95 |
| ALO-DM-30E | 9-15 Vdc | 30A | Digital | Binding Posts, Powerpoles | $149.95 |
| ALO-DM-330MVT | 5-15 Vdc | 32A | Analog | Binding Posts, Cig. Lighter, Terminals | $169.95 |
| ALO-DM-430E | 9-15 Vdc | 30A | Digital | Binding Posts, Powerpoles | $144.95 |
| ALO-DM-430T | 5-15 Vdc | 30A | Digital | Binding Posts, Powerpoles | $144.95 |

## YAESU
The radio

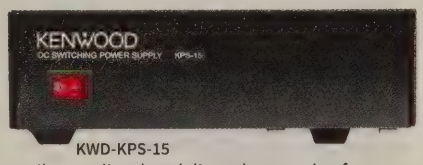
### Power Supplies

Designed to work with Yaesu and other radios, these power supplies deliver a clean and steady 13.8 Vdc. An excellent choice for your base station, the FP-120 Switching Power Supply is fan cooled and supplies 23A (peak)/20A (cont.).

The FP-1030A offers 25A (peak)/22A (cont.). It's a fan-cooled, linear power supply with a pair of front panel volt and amp meters. The supply also features two pairs of terminals, a set of binding posts and a front panel cigarette lighter socket, making it a good bench supply for testing and diagnostic work.

YSU-FP-1023A Switching Power Supply ..... $159.95
YSU-FP-1030A Linear Power Supply ..... $269.95

## KENWOOD




KWD-KPS-15

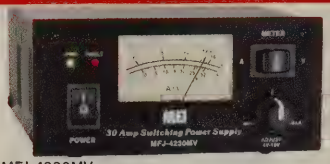
### DC Switching Power Supplies

Kenwood has answered your call for versatile supplies that deliver clean, noise-free power. They both offer over-voltage, over-current, and over-temperature protection.

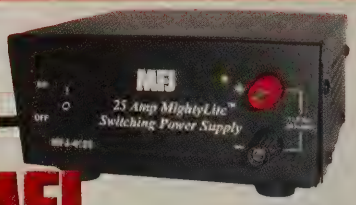
Kenwood designed the PS-60 for TS-590 series radios and the KPS-15 for mobiles. But both supplies will power virtually any radio that needs 13.8 Vdc at 23A (cont.)/25A (peak). Each supply can be set up to accept input voltages ranging from 110-240 Vac, 50/60 Hz.

KWD-KPS-15 Power Supply, 13.8 Vdc, 25A Peak, Convection Cooled ... $139.95
KWD-PS-60 Power Supply, 13.8 Vdc, 25A Peak, Fan Cooled ..... $425.95

## MFJ




MFJ-4230MV




MFJ-4125

MFJ-4225MV

MFJ-4245MV

### MightyLite Switching Power Supplies

Packing plenty of power into a compact package, MightyLite Power Supplies may be the perfect solution for Hams who are short on space but big on power demands. There are several options to choose from, so you can get the supply that meets your power requirements. The supplies are designed to accept input voltages ranging from 85 Vac to 250 Vac, and carry important safeguards like over-voltage and over-current limiting protection. Each supply uses a whisper-quiet internal fan to keep temperatures down. These supplies are a reliable and budget-friendly way to feed your shack with DC voltage.

| Part Number | Features | Output | Connections | Amps at 13.8 Vdc | Price |
|---|---|---|---|---|---|
| MFJ-4125 | Small, Lightweight | 13.8 Vdc | 5-Way Posts | 22A Cont. 25A Peak | $84.95 |
| MFJ-4125P | Small, Lightweight | 13.8 Vdc | 5-Way Posts & Powerpole® | 22A Cont. 25A Peak | $94.95 |
| MFJ-4225MV | Front-Panel Meters and Control | 9-15 Vdc | 5-Way Posts & Cig. Socket | 22A Cont. 25A Peak | $99.95 |
| MFJ-4230MV | Front-Panel Meters and Control | 4-16 Vdc | 5-Way Posts | 25A Cont. 30A Peak | $89.95 |
| MFJ-4245MV | Front-Panel Meters and Control | 9-15 Vdc | 5-Way Posts & Cig. Socket | 40A Cont. 45A Peak | $149.95 |

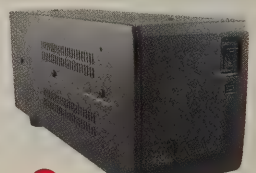
### Heavy-Duty 75 Amp Switching Power Supply

With a whopping 70A continuous/75A peak, this unit can power your mobile HF, VHF/UHF rigs or high-current accessories without breaking a sweat. Voltage output is adjustable from 4 to 16 Vdc using the front panel knob. Dual meters let you monitor voltage and current, and there are indicator LEDs to show power and fault status.

This power supply has short circuit, overload and over-temperature protection. You can hook up your equipment with binding posts, Anderson Powerpoles®, quick connects and a handy cigarette-lighter socket. It uses a whisper-quiet cooling fan.

MFJ-4275MV Heavy-Duty 75 Amp Switching Power Supply ..... $259.95

### DC Power Supply



Your Icom base radio deserves nothing less than an Icom power supply. This fan-cooled, switching supply delivers 25A at 13.8 Vdc. The compact chassis (about 4" wide by 12" deep) won't clutter up your desk.

The supply has a 4-pin DC power connector that's common on newer 100 watt radios, including Icom's IC-7000/7100/7200/7300/7410/7600/9100.

ICO-PS-126 DC Power Supply ..... $429.95

ICOM

## AMERITRON®

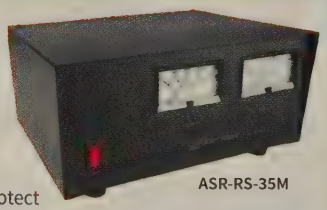
### AME-SPS-75MV 75 Amp Switching Power Supply

This power supply provides 75 amps continuous output current—ideal for use with Ameritron's ALS-500M 500 watt solid state amplifier. It has less than 100 mV peak-to-peak ripple under full load. Load regulation is better than 1.5% under full load. Other features include reverse-polarity protection, brownout input protection, over-current/over-temperature protection and a thermally-controlled quiet fan. Output voltage is variable with metering for both voltage and current.

- Input: 108-132 Vac, 50/60 Hz
- Current Draw: 11 Amps

AME-SPS-75MV 75 Amp Switching Power Supply ..... $244.95

ASTRON CORPORATION


ASR-RS-35M

## RS Power Supplies

These rugged, reliable units are electronically regulated to maintain low ripple at low-line input voltage. They are internally adjustable from 11 to 15 Vdc and include fold-back current limiting to protect your power supply from excessive current and continuous shorted output. Depending on the model, you get features like crowbar over-voltage protection, heavy-duty heat sinks and chassis-mounted fuses for extra protection against overheating and shorting.

"BB" in the part number denotes models that have an integrated battery backup and trickle charger. An "M" in the part number indicates that the units have either dual or single volt/amp meters.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-RS-4A | Power Supply | 3A/4A at 13.8 Vdc | $59.95 |
| ASR-RS-4L | Supply, Cigarette Port | 3A/4A at 13.8 Vdc | $57.95 |
| ASR-RS-5A | Power Supply | 4A/5A at 13.8 Vdc | $66.95 |
| ASR-RS-7A | Power Supply | 5A/7A at 13.8 Vdc | $72.95 |
| ASR-RS-12A | Power Supply | 9A/12A at 13.8 Vdc | $94.95 |
| ASR-RS-12M | Supply with Switchable Meter | 9A/12A at 13.8 Vdc | $105.95 |
| ASR-RS-12A-BB | Supply with Battery Backup | 9A/12A at 13.8 Vdc | $109.95 |
| ASR-RS-12M-BB | Supply with Meter and Backup | 9A/12A at 13.8 Vdc | $121.95 |
| ASR-RS-20A | Power Supply | 16A/20A at 13.8 Vdc | $112.95 |
| ASR-RS-20M | Supply with Dual Meters | 16A/20A at 13.8 Vdc | $136.95 |
| ASR-RS-20A-BB | Supply with Battery Backup | 16A/20A at 13.8 Vdc | $139.95 |
| ASR-RS-20M-BB | Supply with Meters and Backup | 16A/20A at 13.8 Vdc | $179.95 |
| ASR-RS-35A | Power Supply | 25A/35A at 13.8 Vdc | $179.95 |
| ASR-RS-35M | Supply with Dual Meters | 25A/35A at 13.8 Vdc | $199.95 |
| ASR-RS-50A | Power Supply | 37A/50A at 13.8 Vdc | $279.95 |
| ASR-RS-50M | Supply with Dual Meters | 37A/50A at 13.8 Vdc | $319.95 |
| ASR-RS-70A | Power Supply | 57A/70A at 13.8 Vdc | $349.95 |
| ASR-RS-70M | Supply with Dual Meters | 57A/70A at 13.8 Vdc | $399.95 |

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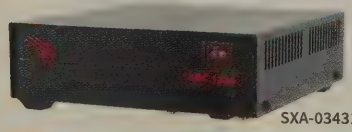

SXA-03431

SXA-03435

## SEC Series Desktop Switching Power Supplies

Here are rock-solid power supplies that don't take up half of your shack. Compact and reliable, the SEC Series Desktop Switching Power Supplies are loaded with over-current, over-voltage and short-circuit protection. They're also well-filtered to produce clean, noise-free power.

### Rack Plates

These durable standard-width rack plates are a great way to get your SEC-series power supplies off your desk and into a rack. They have a black powdercoat finish and cutouts for bottom-mounted fans.

| DXE Number | Samlex Number | Output (Cont.) | Output (Peak) | Price |
|---|---|---|---|---|
| **120 Vac Input** | | | | |
| SXA-03051 | SEC-1212 | 10A at 13.8 Vdc | 14A at 13.8 Vdc | $99.00 |
| SXA-03061 | SEC-1223 | 23A at 13.8 Vdc | 25A at 13.8 Vdc | $126.00 |
| SXA-03064^ | SEC-1223BBM | 23A at 13.8 Vdc | 25A at 13.8 Vdc | $158.00 |
| SXA-03431 | SEC-1235 | 30A at 13.8 Vdc | 35A at 13.8 Vdc | $133.00 |
| SXA-03435* | SEC-1235M | 30A at 13.8 Vdc | 35A at 13.8 Vdc | $129.95 |
| **230 Vac Input** | | | | |
| SXA-03052 | SEC-1212CE | 10A at 13.8 Vdc | 14A at 13.8 Vdc | $110.00 |
| SXA-03062 | SEC-3062 | 23A at 13.8 Vdc | 25A at 13.8 Vdc | $132.00 |
| SXA-03066^ | SEC-1223BBM-230 | 23A at 13.8 Vdc | 25A at 13.8 Vdc | $149.90 |
| **Rackmount Plates for SEC Series** | | | | |
| SXA-03104 | Rackmount Plate for Single Supply | | | $37.00 |
| SXA-03105 | Rackmount Plate for Dual Supplies | | | $49.00 |

* Includes Dual Meters ^ Includes Dual Meters and Battery Backup

ASTRON CORPORATION

ASR-RM-50M

## Rack Mounted Linear Power Supplies

Get consistent, reliable power using these rack mounted linear power supplies. These adjustable, solid state supplies are electronically regulated to offer less than 5mV peak to peak ripple. They incorporate fold-back current limiting and a heavy duty heat sink to ensure years of solid power delivery. Find full details at DXEngineering.com.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| **Rack Mounted Power Supplies with 11 to 15 Vdc Adjustable Output** | | | |
| ASR-RM-12A | Power Supply | 9A/12A at 13.8 Vdc | $126.95 |
| ASR-RM-12A-BB | Power Supply, Battery Backup | 9A/12A at 13.8 Vdc | $159.95 |
| ASR-RM-12M | Power Supply, Dual Meters | 9A/12A at 13.8 Vdc | $169.95 |
| ASR-RM-12M-BB | Supply, Dual Meters, Battery Backup | 9A/12A at 13.8 Vdc | $179.95 |
| ASR-RM-20A | Power Supply | 16A/20A at 13.8 Vdc | $164.95 |
| ASR-RM-20A-BB | Power Supply, Battery Backup | 16A/20A at 13.8 Vdc | $179.95 |
| ASR-RM-20M | Power Supply, Dual Meters | 16A/20A at 13.8 Vdc | $195.95 |
| ASR-RM-20M-BB | Supply, Dual Meters, Battery Backup | 16A/20A at 13.8 Vdc | $209.95 |
| ASR-RM-35A | Power Supply | 25A/35A at 13.8 Vdc | $309.95 |
| ASR-RM-35A-BB | Power Supply, Battery Backup | 25A/35A at 13.8 Vdc | $339.95 |
| ASR-RM-35M | Power Supply, Dual Meters | 25A/35A at 13.8 Vdc | $306.95 |
| ASR-RM-35M-BB | Supply, Dual Meters, Battery Backup | 25A/35A at 13.8 Vdc | $379.95 |
| ASR-RM-50A | Power Supply | 37A/50A at 13.8 Vdc | $349.95 |
| ASR-RM-50A-BB | Power Supply, Battery Backup | 37A/50A at 13.8 Vdc | $409.95 |
| ASR-RM-50M | Power Supply, Dual Meters | 37A/50A at 13.8 Vdc | $379.95 |
| ASR-RM-50M-BB | Supply, Dual Meters, Battery Backup | 37A/50A at 13.8 Vdc | $409.95 |
| ASR-RM-60A | Power Supply | 50A/55A at 13.8 Vdc | $439.95 |
| ASR-RM-60A-BB | Power Supply, Battery Backup | 50A/55A at 13.8 Vdc | $499.95 |
| ASR-RM-60M | Power Supply, Dual Meters | 50A/55A at 13.8 Vdc | $459.95 |
| ASR-RM-60M-BB | Supply, Dual Meters, Battery Backup | 50A/55A at 13.8 Vdc | $559.95 |
| **Rack Mounted Power Supplies with 22 to 32 Vdc Adjustable Output** | | | |
| ASR-LSRM-25A | Power Supply | 18A/25A at 28 Vdc | $359.95 |
| ASR-LSRM-25M | Power Supply, Dual Meters | 18A/25A at 28 Vdc | $369.95 |

samlexamerica®

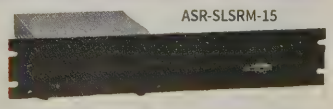
SXA-03261

## Rackmount Switching Power Supplies

Move your power supply to your rack and free up some space on your desk. These power supplies deliver clean, highly-filtered power in a range of input and output voltages. They include automatic battery backup and a trickle charger. A front panel multimeter displays voltage or amperage, and the supplies feature remote-metering capabilities. Each supply features over-current, over-voltage and short-circuit protection.

| DXE Number | Samlex Number | Output (Cont.) | Output (Peak) | Price |
|---|---|---|---|---|
| **120 Vac Input** | | | | |
| SXA-03261 | SEC-40BRM | 40A at 13.8 Vdc | 46A at 13.8 Vdc | $453.00 |
| SXA-03271 | SEC-60BRM | 60A at 13.8 Vdc | 69A at 13.8 Vdc | $512.00 |
| SXA-03281 | SEC-80BRM | 80A at 13.8 Vdc | 92A at 13.8 Vdc | $570.00 |
| SXA-03291 | SEC-100BRM | 100A at 13.8 Vdc | 115A at 13.8 Vdc | $666.00 |
| SXA-03364 | SEC-2450BRM | 50A at 27.6 Vdc | 57.5A at 27.6 Vdc | $640.00 |
| SXA-03418 | SEC-4825BRM | 25A at 54.2 Vdc | 30A at 54.2 Vdc | $640.00 |
| **230 Vac Input** | | | | |
| SXA-03312 | SEC-40BRM-220 | 40A at 13.8 Vdc | 46A at 13.8 Vdc | $509.00 |
| SXA-03342 | SEC-100BRM-220 | 100A at 13.8 Vdc | 115A at 13.8 Vdc | $735.00 |

## SLS Series Switching Power Supplies

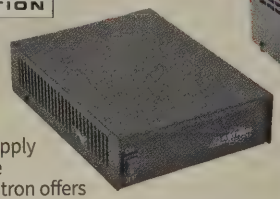

ASR-SLSRM-15

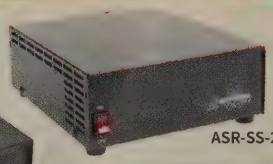
Astron's SLS Series supplies are filtered specifically against RF interference, including the HF range. They also include an EMI filter, making them perfect for powering sensitive communications equipment. These supplies provide 28 Vdc, and include current limiting, over-voltage and thermal protection, and a fused input. The SLS Series supplies are also selectable for 115 or 220 Vac input at either 50 or 60 Hz for excellent versatility.

ASTRON CORPORATION

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-SLSRM-15 | Rack Mounted SLS Power Supply | 12.5A/15A at 28 Vdc | $148.95 |
| ASR-SLSRM-15-2 | Dual Rack Mounted SLS Supplies | 12.5A/15A at 28 Vdc | $284.95 |
| ASR-SLS-15 | Standalone SLS Power Supply | 12.5A/15A at 28 Vdc | $131.95 |

ASTRON CORPORATION


ASR-SS-10


ASR-SS-25

ASR-SS-25M

### SS Series Switching Power Supplies

If you need a power supply that doesn't eat up the space on your desk, Astron offers these low profile options. They deliver a steady 13.8 Vdc and are immune to RFI. These supplies include an EMI filter to resist RFI, even in the HF bands.

The "M" in the number denotes models that include front panel volt and amp meters.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-SS-10 | Power Supply | 7A/10A at 13.8 Vdc | $84.95 |
| ASR-SS-12 | Power Supply | 10A/12A at 13.8 Vdc | $93.95 |
| ASR-SS-18 | Power Supply | 15A/18A at 13.8 Vdc | $104.95 |
| ASR-SS-25 | Power Supply | 20A/25A at 13.8 Vdc | $119.95 |
| ASR-SS-25M | Supply with Dual Meters | 20A/25A at 13.8 Vdc | $139.95 |
| ASR-SS-30 | Power Supply | 25A/30A at 13.8 Vdc | $139.95 |
| ASR-SS-30M | Supply with Dual Meters | 25A/30A at 13.8 Vdc | $149.95 |
| ASR-SS-50 | Power Supply | 40A/50A at 13.8 Vdc | $189.95 |
| ASR-SS-50M | Supply with Dual Meters | 40A/50A at 13.8 Vdc | $199.95 |

DIAMOND ANTENNA

### GZV4000 and GZV6000 Switching Mode Power Supplies

DMN-GZV4000

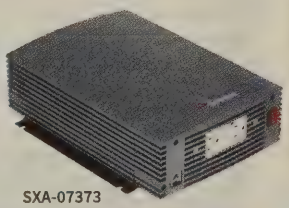
The GZV4000 provides a variable voltage output from 5 to 15 Vdc at 40 amps, while its higher-rated counterpart the GZV6000 gives you 1 to 15 Vdc at 60 amps.

These versatile power supplies look great and offer you rock-solid performance. The attractive front panel includes a selectable meter with post, snap-on and cigarette lighter outputs. The voltage control knob has a center 13.5 Vdc detent for precise adjustability. A built-in 8 watt speaker makes these power supplies a versatile addition to your shack's setup.

DMN-GZV4000 Switching Mode Power Supply, 40A ..... $189.95
DMN-GZV6000 Switching Mode Power Supply, 60A ..... $399.95

samlexamerica®

### DC/AC Pure Sine Wave Inverters


SXA-07373

Radios, computers, A/V equipment and virtually any piece of precision electronic gear need the cleanest, most stable power source to function properly. Pure sine wave inverters are the best way to keep your transceiver and shack equipment functioning at their peak.

| DXE Number | Samlex Number | Watts (Cont.) | Watts (Surge) | Receptacles | Price |
|---|---|---|---|---|---|
| **12 Vdc In/110 Vac Out Pure Sine Wave Inverters** | | | | | |
| SXA-07461 | SA-300-112 | 300 | 400 | 2 AC | $169.10 |
| SXA-07481 | SA-1000K-112 | 1,000 | 2,000 | 2 AC | $388.10 |
| **12 Vdc In/115 Vac Out Pure Sine Wave Inverters** | | | | | |
| SXA-07370 | SSW-350-12A | 350 | 700 | 2 AC, 1 USB | $103.00 |
| SXA-07371 | SSW-600-12A | 600 | 1,200 | 2 AC, 1 USB | $178.00 |
| SXA-07372 | SSW-1000-12A | 1,000 | 2,000 | 2 AC | $307.00 |
| SXA-07374 | SSW-1500-12A | 1,500 | 3,000 | 2 AC | $367.00 |
| SXA-07373 | SSW-2000-12A | 2,000 | 4,000 | 2 AC | $444.00 |
| **12 Vdc In/120 Vac Out Pure Sine Wave Inverters** | | | | | |
| SXA-07223 | PST-15S-12A | 150 | 300 | 1 AC | $128.00 |
| SXA-07213 | PST-300-12 | 300 | 500 | 2 AC | $169.00 |
| SXA-07215 | PST-600-12 | 600 | 1,200 | 2 AC | $237.00 |
| SXA-07425 | SA-3000K-112 | 3,000 | 6,000 | 2 AC | $1,148.50 |
| **12 Vdc In/230 Vac Out Pure Sine Wave Inverters** | | | | | |
| SXA-07313 | PST-30S-12E | 300 | 500 | 1 Schuko | $181.00 |
| SXA-07323 | PST-60S-12E | 600 | 1,000 | 1 Schuko | $258.00 |
| **24 Vdc In/110 Vac Out Pure Sine Wave Inverters** | | | | | |
| SXA-07456 | SA-150-124 | 150 | 200 | 2 AC | $148.50 |
| SXA-07462 | SA-300-124 | 300 | 400 | 2 AC | $169.10 |
| SXA-07482 | SA-1000K-124 | 1,000 | 2,000 | 2 AC | $388.10 |
| SXA-07755 | SA-2000K-124 | 2,000 | 4,000 | 2 AC | $774.70 |

ASTRON CORPORATION

ASR-VS-35M

### VS Power Supplies

Astron's VS line of 13.8 Vdc power supplies have the same reliable performance of the RS line. These models also feature front-panel knobs, so you can easily adjust output from 2 to 15 Vdc. They include separate front-panel volt and amp meters.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-VS-12M | Power Supply | 9A/12A at 13.8 Vdc | $151.95 |
| ASR-VS-20ML | Supply, Cigarette Lighter Port | 16A/20A at 13.8 Vdc | $159.95 |
| ASR-VS-35M | Power Supply | 25A/35A at 13.8 Vdc | $209.95 |
| ASR-VS-50M | Power Supply | 37A/50A at 13.8 Vdc | $324.95 |
| ASR-VS-70M | Power Supply | 57A/70A at 13.8 Vdc | $399.95 |

### VLS Series Power Supplies

With an adjustable output voltage from 5 to 32 volts, these power supplies can provide DC power to a wide range of shack gear. They feature front-panel adjustable output controls, making them great bench "test" power supplies. These supplies are also great solutions if you have unique voltage requirements.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-VLS-10M | Supply with Dual Meters | 8A/10A at 28 Vdc | $169.95 |
| ASR-VLS-25M | Supply with Dual Meters | 18A/25A at 28 Vdc | $329.95 |
| ASR-VLS-35M | Supply with Dual Meters | 27A/35A at 28 Vdc | $379.95 |

### LS Power Supplies

Delivering an adjustable 22 to 32 volts of regulated DC power, these Astron linear power supplies feature over-voltage protection, low-ripple and a heavy duty heat sink. Each power supply incorporates fold-back current limiting to protect it from excessive current and accidental shorts.

| Part Number | Description | Amps Continuous/Peak | Price |
|---|---|---|---|
| ASR-LS-3A | Power Supply | 3A/4A at 28 Vdc | $79.95 |
| ASR-LS-10A | Power Supply | 8A/10A at 28 Vdc | $129.95 |
| ASR-LS-18A | Power Supply | 12A/18A at 28 Vdc | $204.95 |
| ASR-LS-25A | Power Supply | 18A/25A at 28 Vdc | $279.95 |
| ASR-LS-35A | Power Supply | 27A/35A at 28 Vdc | $319.95 |
| ASR-LS-35M | Supply with Dual Meters | 27A/35A at 28 Vdc | $379.95 |

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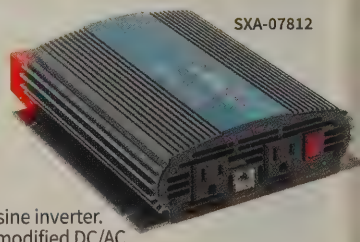

SXA-07812

### SAM Series DC/AC Modified Sine Wave Inverters

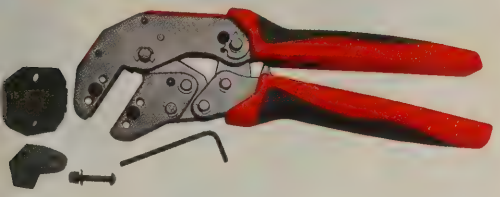
If you just want reliable DC power for your tools, lights or appliances, then you don't need a pure sine inverter. Save yourself some money and check out these modified DC/AC inverters. They convert 12- or 24-volt DC input voltage into reliable 120-volt AC.

The SAM series is both cost effective and powerful. The inverters boast a compact design, a load controlled cooling fan and an ETL safety listing. The PSE Series features a high-efficiency modified sine wave inverter with a high output current surge.

Consult the nearby table for more specs, visit DXEngineering.com or call us. We can help you select the right inverter for your power needs.

| DXE Number | Samlex Number | Watts | Input (Vdc) | Receptacles | Surge (Watts) | Price |
|---|---|---|---|---|---|---|
| SXA-07806 | SAM-100-12 | 100 | 12 | 1 AC/1 USB | 200 | $20.00 |
| SXA-07807 | SAM-250-12 | 250 | 12 | 1 AC/1 USB | 500 | $29.00 |
| SXA-07808 | SAM-450-12 | 450 | 12 | 2 AC/1 USB | 900 | $39.00 |
| SXA-07828 | SAM-450-12E | 450 | 12 | 1 AC/1 USB | 900 | $40.00 |
| SXA-07809 | SAM-800-12 | 800 | 12 | 2 AC/1 USB | 1,600 | $66.00 |
| SXA-07812 | SAM-1000-12 | 1,000 | 12 | 2 AC | 2,000 | $106.00 |
| SXA-07817 | SAM-1500-12 | 1,500 | 12 | 2 AC | 3,000 | $192.00 |
| SXA-07865 | SAM-1500C-12 | 1,500 | 12 | 2 AC | 3,000 | $338.00 |
| SXA-07827 | SAM-2000-12 | 2,000 | 12 | 3 AC | 4,000 | $278.00 |
| SXA-07836 | SAM-3000-12 | 3,000 | 12 | 3 AC | 6,000 | $394.00 |

DX ENGINEERING



### Ultra-Grip 2 Crimp Connector Hand Tool for Powerpoles®

Installing Powerpole® connectors? This tool ensures a professional-quality crimp on your coaxial cable. The crimp tool comes with dies for 15, 30 and 45 amp Anderson Powerpole connectors. Additional dies and a case are available separately.

DXE-UT-CRMP2-PWR Ultra-Grip 2 Crimp Connector Tool for Powerpoles..... **$49.68**

Anderson Power Products®

### Powerpole® Insertion or Extraction Tool

Use this specialized tool to properly install the metal contacts into your Powerpole connectors. It's compatible with PP15 to PP45 type connectors.

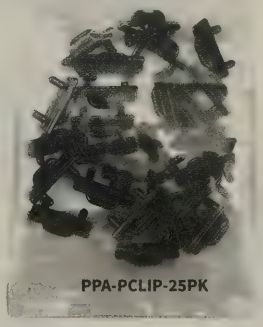
PPA-111038G2 Powerpole Insertion or Extraction Tool.....**$9.95**

DX ENGINEERING

### Power Wire, 2 Conductor Zip Cord

Zip Cord is two-conductor cord which is typically used for low voltage DC power wiring circuits. The red and black colors make it simple to identify polarity for DC applications.

DXE-PW-8 Power Wire, 8-Gauge.....per foot **$1.65**
DXE-PW-8-SPL Power Wire, 8-Gauge, 500' Spool....**$749.95**
DXE-PW-10 Power Wire, 10-Gauge.....per foot **$1.19**
DXE-PW-12 Power Wire, 12-Gauge.....per foot **$0.89**
DXE-PW-14 Power Wire, 14-Gauge.....per foot **$0.59**
DXE-PW-16 Power Wire, 16-Gauge.....per foot **$0.37**
DXE-PW-18 Power Wire, 18-Gauge.....per foot **$0.23**



PPA-PCLIP-25PK

### Powerpole® Retention Clips

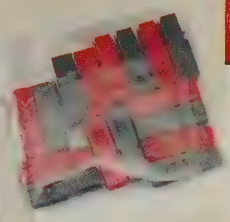
These handy clips lock your Powerpoles in place, so you don't have to worry about them accidentally falling out of their receptacles. Use these clips to secure your Powerpoles safely on your DC outlet panel.

WMT-58257-1092 Retention Clips, Pack of 12 ..... **$7.95**
PPA-PCLIP-25PK Retention Clips, Pack of 25 ..... **$10.45**
PPA-PCLIP-100PK Retention Clips, Pack of 100 ..... **$38.95**

PPA-STDHSG-11PK

PPA-PP45-10PK

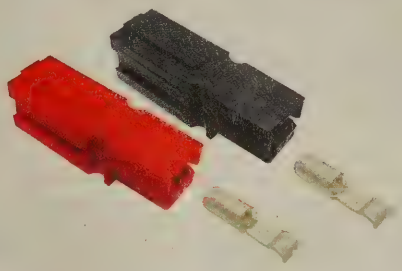
PPA-WP30-10PK



PPA-ASMPP30-8PK

APP
Anderson Power Products®

An IDEAL Company



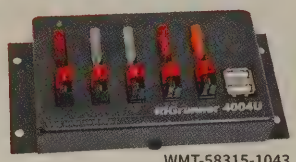
### Powerpoles®

Powerpoles are the industry standard connectors for low voltage DC power applications. You'll find Powerpoles spec'd for a variety of government projects and they're in commercial broadcast stations all over the planet. The Powerpoles listed below safely handle 15-45 amps and are compatible with 20 to 10 AWG zip cord. In standard form, Powerpoles come disassembled, but there are also ultrasonically welded preassembled pairs that simplify installation.

DX Engineering carries virtually any Powerpole variant you'll need, along with accessories, zip cord, and the proper assembly tools.

| Part Number | Description | Quantity | Price |
|---|---|---|---|
| PPA-1327G21-10PK | Standard Connectors, Brown | 10 | $5.95 |
| PPA-1327G22-10PK | Standard Connectors, Pink | 10 | $5.95 |
| PPA-1327G23-10PK | Standard Connectors, Purple | 10 | $5.95 |
| PPA-1327G17-10PK | Standard Connectors, Orange | 10 | $5.95 |
| PPA-1327G18-10PK | Standard Connectors, Gray | 10 | $5.95 |
| PPA-1327G7-10PK | Standard Connectors, White | 10 | $5.95 |
| PPA-1327G8-10PK | Standard Connectors, Blue | 10 | $5.95 |
| PPA-1327G16-10PK | Standard Connectors, Yellow | 10 | $5.95 |
| PPA-1327G5-10PK | Standard Connectors, Green | 10 | $5.95 |
| PPA-1327-10PK | Standard Connectors, Red | 10 | $5.95 |
| PPA-1327G6-10PK | Standard Connectors, Black | 10 | $5.95 |
| PPA-STDHSG-11PK | Standard Connectors, Assorted Colors | 11 | $5.95 |
| PPA-PP15-10PK | Pair, 10 Red + 10 Black, for ≤ 16 AWG Wire | 20 | $9.95 |
| PPA-PP45-10PK | Pair, 10 Red + 10 Black, for 10-14 AWG Wire | 20 | $14.95 |
| PPA-PP45-25PK | Pair, 25 Red + 25 Black, for 10-14 AWG Wire | 50 | $29.95 |
| PPA-PP45-50PK | Pair, 50 Red + 50 Black, for 10-14 AWG Wire | 100 | $57.95 |
| PPA-PP45-100PK | Pair, 100 Red + 100 Black, for 10-14 AWG Wire | 200 | $107.95 |
| PPA-PP30-10PK | Pair, 10 Red + 10 Black, for 12-16 AWG Wire | 20 | $9.95 |
| PPA-PP30-25PK | Pair, 25 Red + 25 Black, for 12-16 AWG Wire | 50 | $19.95 |
| PPA-PP30-50PK | Pair, 50 Red + 50 Black, for 12-16 AWG Wire | 100 | $37.95 |
| PPA-PP30-100PK | Pair, 100 Red + 100 Black, for 12-16 AWG Wire | 200 | $69.95 |
| PPA-WP30-10PK | Preassembled Welded Housing Pair, 10, for 12-16 AWG Wire | 20 | $11.95 |
| PPA-WP30-40PK | Preassembled Welded Housing Pair, 40, for 12-16 AWG Wire | 80 | $37.45 |
| PPA-WP30-100PK | Preassembled Welded Housing Pair, 100, for 12-16 AWG Wire | 200 | $115.45 |
| PPA-ASMPP30-8PK | Powerpole Assembly, 2 Wire Red/Black, Single Row | 8 | $8.95 |
| PPA-261G1-25PK | Contact Terminals Only, 30A, for 12-16 AWG Wire | 25 | $15.95 |
| PPA-261G1-50PK | Contact Terminals Only, 30A, for 12-16 AWG Wire | 50 | $31.95 |
| PPA-261G2-25PK | Contact Terminals Only, 45A, for 10-14 AWG Wire | 25 | $8.45 |
| PPA-261G2-50PK | Contact Terminals Only, 45A, for 10-14 AWG Wire | 50 | $16.45 |
| PPA-1331-25PK | Contact Terminals Only, 30A, for 12-16 AWG Wire | 25 | $4.45 |
| PPA-1331-50PK | Contact Terminals Only, 30A, for 12-16 AWG Wire | 50 | $8.95 |
| PPA-1332-25PK | Contact Terminals Only, 15A, for 16-20 AWG Wire | 25 | $4.45 |
| PPA-1332-50PK | Contact Terminals Only, 15A, for 16-20 AWG Wire | 50 | $8.95 |
| PPA-200G1L-25PK | Contact Terminals, 45A, for 10-14 AWG High Stranding Wire | 25 | $13.95 |
| PPA-200G1L-50PK | Contact Terminals, 45A, for 10-14 AWG High Stranding Wire | 50 | $26.95 |
| PPA-PCLIP-25PK | Retention Clips | 25 | $10.45 |
| PPA-PCLIP-100PK | Retention Clips | 100 | $38.95 |

WEST MOUNTAIN RADIO


WMT-58315-1043

WMT-58307-1037

WMT-58307-1035

### *RIGrunner DC Outlet Panels*

Got a pile of spaghetti where your DC power cables should be? These RIGrunner Outlet Panels will clean up your shack, while giving you some advanced features in the process. Each outlet is fused for protection and ensures you have reliable power distribution for your gear. Most provide 40 amps of maximum output current and include Powerpole® connectors and fuses. "U" models have USB ports, handy for charging your smartphone.

If you're installing one in a vehicle, check out the 4010S+ models, which feature programmable voltage thresholds and automatic on/off parameters, plus a built-in PWRguard.

| Part Number | Description | Voltage Alarm | Power Cables | Powerpole® Connections | Price |
|---|---|---|---|---|---|
| WMT-58301-1028 | RIGrunner 8012, 80A Input | Yes | 8 AWG, 6' | 12 | $159.95 |
| WMT-58303-1601 | RIGrunner 4010S+, PWRguard | Yes | Sold Separately | 10 | $179.95 |
| WMT-58303-1609 | RIGrunner 4010S+, PWRguard | Yes | 10 AWG, 6' | 10 | $199.95 |
| WMT-58307-1034 | RIGrunner 4008 | Yes | 10 AWG, 6' | 8 | $119.95 |
| WMT-58307-1035 | RIGrunner 4008 | No | Sold Separately | 8 | $89.95 |
| WMT-58307-1036 | RIGrunner 4008H, Side Connectors | No | 10 AWG, 6' | 8 | $109.95 |
| WMT-58307-1037 | RIGrunner 4008H, Side Connectors | No | Sold Separately | 8 | $89.95 |
| WMT-58307-1124 | RIGrunner 4008, -48 Vdc Negative | Yes | Sold Separately | 8 | $164.95 |
| WMT-58307-1126 | RIGrunner 4008, -48 Vdc Positive | Yes | Sold Separately | 8 | $124.95 |
| WMT-58307-1125 | RIGrunner 4008, -24 Vdc Positive | Yes | Sold Separately | 8 | $124.95 |
| WMT-58312-1038 | RIGrunner 4005 | No | 10 AWG, 6' | 5 | $74.95 |
| WMT-58312-1039 | RIGrunner 4005 | No | Sold Separately | 5 | $64.95 |
| WMT-58312-1040 | RIGrunner 4005, Side Connectors | No | 10 AWG, 6' | 5 | $84.95 |
| WMT-58312-1041 | RIGrunner 4005, Side Connectors | No | Sold Separately | 5 | $69.95 |
| WMT-58315-1042 | RIGrunner 4004U, 2 USB Charge Ports | No | 10 AWG, 6' | 4 | $94.95 |
| WMT-58315-1043 | RIGrunner 4004U, 2 USB Charge Ports | No | Sold Separately | 4 | $79.95 |

MFJ-1117

MFJ-1118

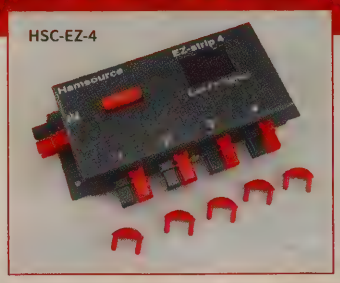
MFJ

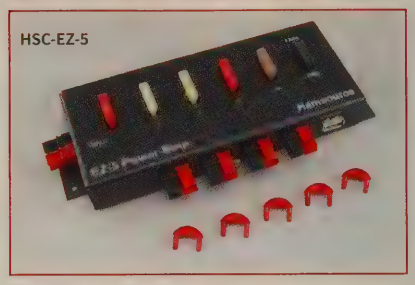
MFJ-1124

### *Multiple Outlet Panels*

Answering your call for reliable and safe power distribution, these high-current outlet strips let you connect multiple pieces of gear without cluttering up your shack. They use heavy duty fused outputs to protect your equipment and are housed in an easy-to-mount aluminum chassis. Connection to your ground system is as simple as turning the wing nut on the chassis mounted lug. Fuses and 6 feet of stranded 8-gauge power cord are included.

| Part Number | Description | Max. Current | High Current Connections | Low Current Connections | Price |
|---|---|---|---|---|---|
| MFJ-1112 | DC Power Outlet Strip | 15A | None | 6 Binding Posts | $44.95 |
| MFJ-1116 | Switched Outlet Strip with Meter | 15A | None | 8 Binding Posts | $59.95 |
| MFJ-1117 | DC Power Outlet Strip | 35A | 2 Binding Posts | 2 Binding Posts | $64.95 |
| MFJ-1118 | Switched Outlet Strip with Meter | 35A | 2 Binding Posts | 6 Binding Posts | $84.95 |
| MFJ-1124 | DC Power Outlet Strip | 40A | 2 Powerpole® | 2 Powerpole® | $64.95 |
| MFJ-1126 | Switched Outlet Strip with Meter | 40A | 1 Powerpole® | 5 Powerpole® | $84.95 |
| MFJ-1128 | Switched Outlet Strip with Meter | 40A | 3 Powerpole® | 9 Powerpole® | $104.95 |
| MFJ-1129 | Switched Outlet Strip with Meter | 40A | 2 Powerpole®1 Binding Post | 5 Powerpole® 2 Binding Posts | $114.95 |


HSC-EZ-4


HSC-EZ-5

## Hamsource

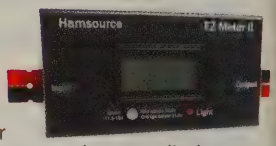
### *EZ Power Strips*

Safely deliver DC power to your accessories. Using ultra-reliable Andersen Powerpole® connectors and individually fused outlets, Hamsource's EZ-4 and EZ-5 Power Strips deliver up to 40A output.

The EZ-5 can be used as a standalone power strip, or as an expansion panel to add more outputs to your original EZ Power Strip. The EZ-5 has 4 fused outputs, plus a 1A USB port. Short on space? The EZ-4 is a compact 4-output panel with a built-in LED voltage meter. Each strip includes the appropriate fuses, Powerpole connectors and locking clips.

HSC-EZ-4 EZ-4 Power Strip.....**$59.95**
HSC-EZ-5 EZ-5 Power Strip.....**$84.95**
HSC-PS-CABLE-6FT Power Supply Cable, 6'.....**$12.95**

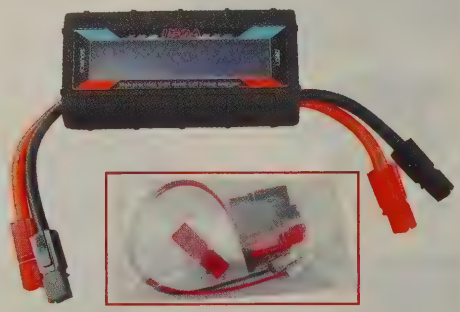
## Hamsource



### *EZ Meter II DC System Monitor*

Closely monitor the condition of your DC power system with help from Hamsource. The meter displays voltage and current, and has a bright LED for quick, at-a-glance status indication. It's a great way to check power consumption and quickly detect and diagnose power issues. Plus, since the positive lead does the current sensing, you can install it in your mobile rig, too. The EZ Meter II has chassis-mount connectors.

HSC-EZMETERII EZ Meter II .....**$79.95**



### *Inline DC Multimeter Kit*

Insert this meter in your shack's power system, and you'll be able to track voltage, current, watts and watt-hours. It only draws about 10mA, so there's no significant affect on your power consumption. It's a smart way to monitor your station's operational efficiency. The kit includes DC power wires and Powerpole® connectors. Some assembly required, shown with Powerpole connectors installed.

DMV-VAM-150-P Inline DC Voltmeter Kit.....**$39.00**

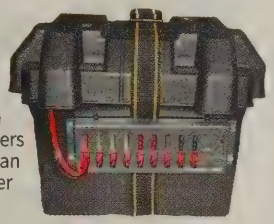
samlexamerica

### Three Stage Battery Chargers

Capable of charging flooded, AGM or Gel-Cell batteries, these UL-/ETL-approved chargers are versatile enough for multiple applications. Depending on the model, they can charge several banks of batters simultaneously, and when sized right, they'll be able to charge a battery even while it is under load. The chargers feature an ammeter, and incorporate short circuit, overload and reverse polarity protection.

| DXE Number | Samlex Number | Description | Voltage/ Amperage | Price |
|---|---|---|---|---|
| SXA-08301 | SEC-1215UL | Charger | 12 Vdc/15A | $144.00 |
| SXA-08302 | SEC-1230UL | Charger, Handles 3 Battery Banks | 12 Vdc/30A | $218.00 |
| SXA-08305 | SEC-2415UL | Charger | 24 Vdc/15A | $218.00 |
| SXA-08306 | SEC-2425UL | Charger, Dual Ammeters | 24 Vdc/25A | $371.00 |

West Mountain Radio

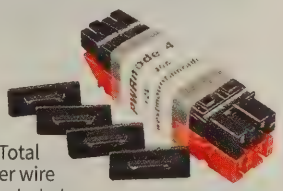


### DC-to-GO

Combine a durable and weather resistant battery box with one of West Mountain's RIGrunner power distribution centers and you have a portable power station capable of feeding an entire radio setup. Available in multiple sizes and RIGrunner types, these DC-to-GO boxes can be the backbone of your emergency power system.

WMT-58513-1061 DC-to-GO ..... $134.95

West Mountain Radio

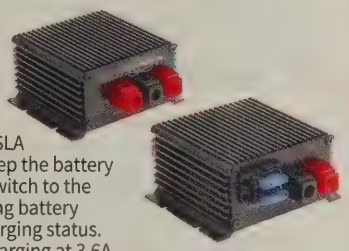


### Temporary Power Node

Perfect for Field Day, EMCOMM, temporary installations or when you just need an extra outlet, this node gives you four pairs of paralleled Anderson Powerpole® connectors. Total rated current is 40A at 12 Vdc, just make sure your DC power wire gauge matches your power demands. Retaining clips are included.

WMT-58519-1067 Temporary Power Node ..... $14.95

ASTRON CORPORATION



### Battery Backup Module

Add battery backup to your shack. Just connect this unit between your power supply and a wet or SLA standby battery, and it acts as a float charger to keep the battery ready. If your AC power fails, it will automatically switch to the battery in an instant. Fuses protect the circuit during battery charge/discharge and a front LED indicates the charging status. Maximum battery load is 30A and the unit limits charging at 3.6A. The module works with 12- and 24-volt systems.

ASR-BB-30M Battery Backup Module ..... $69.95

samlexamerica

### Battery Backup Module

Connect this module to your power supply and battery to make a battery backup system. When your AC power fails, the unit will instantly switch to your battery. When the AC power is restored, it switches back to charging. The module works with voltages from below 12 Vdc, up to 28 Vdc and can handle a maximum output current of 100 amps. This float-type battery charger can be an essential backbone for your shack or EMCOMM setup.

SXA-08081 BBM-12100 Battery Backup Module ..... $131.00

West Mountain Radio

### Super PWRgate PG40S

The Super PWRgate maintains a steady stream of up to 40A continuous from your power supply or battery and will instantly switch to battery backup if you lose power—you won't even notice the switchover. It also has a built-in battery charger to ensure that your battery is ready when you need it.

WMT-58403-1046 Super PWRgate PG40S ..... $139.95

### PWRguard Plus PG40S

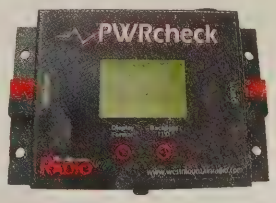
West Mountain Radio

If your power supply is rapidly changing, the PWRguard Plus can sense it and shut the system down, preventing expensive damage to your equipment. You can set the voltage trip threshold and the PWRguard has in-rush current protection as an extra precaution against damage. It's rated for a maximum of 40 amps (peak) and indicator LEDs let you know it is working.

WMT-58402-1045 PWRguard Plus PG40S ..... $114.95

### PWRcheck

West Mountain Radio

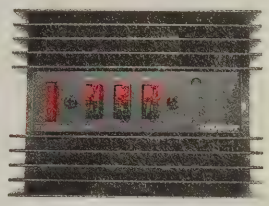



Put this in-stream between your source and load and you'll be able to closely monitor voltage, current, wattage and amp-hours in real time, in both directions. A large LCD screen displays everything and there's an intuitive USB interface. The PWRcheck also has logging capabilities and the readouts provide millivolt/milliamp precision.

WMT-58430-1286 PWRcheck ..... $179.95

### ISOpwr

West Mountain Radio



Turn your vehicle into a battery charger. The ISOpwr lets you connect an additional battery to your vehicle's battery to charge both of them when the alternator is running. When the alternator stops, this unit isolates your main battery to prevent it from draining. It's an essential tool for power-hungry mobile installations like an ARES® or RACES command station, or contest mobile rover.

WMT-58401-1044 ISOpwr ..... $89.95

HSC-EZGATE-80

HSC-EZGATE

Hamsource

### EZ-Gate Battery Backup Switches

Get near-instantaneous switching between your battery backup and household AC power supply. These switches are designed for 13.8 Vdc, with an inline voltage drop of around .2 to .3 Vdc. Simply plug in your AC and DC power sources and use the large ring terminals to distribute power to your shack.

The EZ-Gate is suited for 40A distribution and 1A float charging, while the EZ-Gate 80 can handle 80A distribution and selectable 10/20A charging.

HSC-EZGATE-80 EZ-Gate, 80 Amp Distribution ..... $189.95
HSC-EZGATE EZ-Gate, 40 Amp Distribution ..... $69.95

MFJ

### Super Battery Booster

Your mobile rig may not always get a stable 13.8 Vdc from your vehicle's battery. To combat the fluctuations in power and keep your radio operating at its fullest potential, install this MFJ Battery Booster. It ensures a steady stream of 13.8 Vdc and can be tailored to specific voltage limits, protecting your battery from over-discharge. An internal 30 amp input fuse prevents excess output and this unit has over-voltage protection. Input voltage and output voltage are adjustable.

MFJ-4416C Super Battery Booster ..... $179.95

## Deep Cycle Batteries

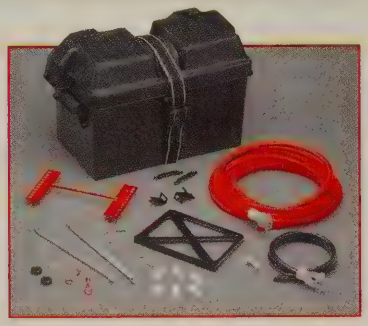
These AGM 12-volt batteries are ideal for Amateur Radio applications, or for any time you need long-lasting, portable power. They're spill-proof, vibration resistant and will mount in any position. The batteries are safe for indoor use and will survive long periods of slow discharge, making them perfect for EMCOMM trailers. You can also use these batteries in mobile installations that typically draw more power than your alternator can handle.

YellowTop Deep Cycle batteries have SAE automotive-style terminals while BlueTop Deep Cycle Marine batteries have both automotive-style terminals and threaded studs.

| Part Number | Description | Cranking Amps at 0° F | Reserve Capacity | BCI Group Number | Price |
|---|---|---|---|---|---|
| ULT-9012-021 | YellowTop | 750 | 120 Minutes | 34 | **$218.99** |
| ULT-9014-045 | YellowTop | 750 | 120 Minutes | 34/7 | **$212.99** |
| ULT-9050-160 | YellowTop | 900 | 155 Minutes | 31T | **$259.99** |
| ULT-9051-160 | YellowTop | 900 | 155 Minutes | 31A | **$239.99** |
| ULT-9016-103 | BlueTop | 750 | 120 Minutes | 34 | **$194.99** |
| ULT-9027-127 | BlueTop | 800 | 140 Minutes | 27 | **$236.99** |
| ULT-9052-161 | BlueTop | 900 | 155 Minutes | 31 | **$252.99** |

**Deep Cycle Batteries can only be shipped by ground.**

## Battery Box Kit



If you're putting a battery in an EMCOMM trailer or installing an auxiliary battery in your trunk, make sure it's protected. The kit includes the box, case straps, cable straps, J-bolts, connectors, grommets and hardware. You'll also get 20' of 2-gauge positive and 3' of negative battery cable.

The box is made from marine-grade polyethylene and measures 15" L x 9" W x 10.5" H.

SUM-G1200A Battery Box Kit ..... **$99.97**

**Individual Components**

SUM-G1220A Battery Cable Kit ..... **$86.97**
SUM-G1199-1 Battery Box, Red ..... **$14.97**
SUM-G1210 Battery Box, Black ..... **$14.97**
SUM-G1201 7.25" x 13.125" Tray with Bracket ..... **$25.97**
SUM-G1202 Wing Nut Hold-Down ..... **$9.97**

VEL-PMLCDL

VEL-PMLED-5

## Digital Panel Meters

Add a digital readout to your next project. Though they're easily configured to monitor either voltage or current, the meters can also be modified to display temperature, decibels, watts, capacitance, and a wide range of other parameters.

VEL-PMLED-5 LED Panel Meter, Req. 5 Vdc ..... **$19.95**
VEL-PMLCDL LCD Panel Meter, Req. 9 Vdc ..... **$9.95**

## iX Series Portable Generator

Clean and quiet, this generator is practically tailor-made for Amateur Radio. It's also great for camping, tailgating or vacationing. At its core is a 4-stroke, pull-start gasoline engine housed in a rugged, yet easy-to-carry chassis.

This generator has status LEDs, plus output overload and low-oil shutdown safeguards. A selectable FlexPower mode conserves gas and reduces noise. The iX Series' special inverter technology offers less than 3 percent total harmonic distortion, ideal for sensitive electronic equipment.

The GNR-7117 provides 2,000 watts and delivers power through a standard 120 Vac outlet and 12 Vdc port, and features a 0.5 gallon tank. Find more generators and generator accessories, type keyword "Generator" into the search box at DXEngineering.com.

GNR-7117 iX Series Portable Generator, 2,000 Watts ..... **$599.00**

## Battery Tender Systems

If you're running a high-power mobile rig, dual batteries or a battery-powered standalone EMCOMM trailer, it's a good idea to take care of your battery. Deltran offers you several fantastic options in the Battery Tender line. Much better than simple trickle chargers, these units are packed with features to ensure that you'll have plenty of reliable DC on hand when you need it.

**Battery Tender Plus**

Designed to charge and maintain batteries at the proper storage level, the Battery Tender Plus is the flagship of Deltran's Battery Tender line. Using a three-step charging mode (bulk charge, absorption and float), the Battery Tender Plus keeps your battery charged without the damaging effects of a basic trickle charger. It features a quick-connect harness, reverse polarity protection and auto-switching between charging modes. It even reacts to ambient temperatures, adjusting charging power to ensure that your battery is ready to go, when you need it.

DTN-021-0128 Battery Tender Plus ..... **$49.99**

**Battery Tender Waterproof 800**

Great for the field, the Battery Tender Waterproof 800 Charging System packs 800 mA of charging power into a compact package. It will constantly monitor your battery, making sure that it maintains optimum performance levels. The Waterproof 800 features short circuit and reverse polarity protection and resists the elements for years of trouble-free use.

DTN-022-0150DLWH Battery Tender Waterproof 800 ..... **$39.99**

**Battery Tender Junior**

If you're small on space but big on power demands, ensure you have a steady supply of DC with Deltran's Battery Tender Plus Junior. It has many of the powerful features of its big brothers in a small, extremely portable and lightweight package. It's spark-proof, with reverse polarity protection and a two-color LED indicates your battery's charging state.

DTN-021-0123 Battery Tender Junior ..... **$27.99**

## Battery Disconnect Switch

This switch gives you a quick way to positively shut off power from your battery. This combats unwanted drain, while helping to ensure that your battery remains charged until you need it. Rated for 20 amps continuous, it will also handle short duration surge loads of 125 amps.

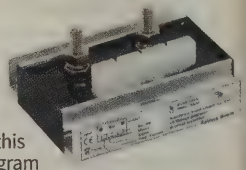
SUM-G1432 Battery Disconnect Switch ..... **$20.97**

## Analog Voltmeter Gauges

Keep a close eye on your 12-volt DC power with these precise gauges. With a 10- to 18-volt sweep, these 2.625" diameter backlit gauges will work great in your car, shack or portable rig.

SUM-G2939 Analog Voltmeter Gauge, White Face ..... **$18.97**
SUM-G29119 Analog Voltmeter Gauge, Black Face ..... **$25.97**

## Battery Isolating Load Protector



This unit protects your battery and its load by isolating them from a variety of power faults. In the event of excessive load, this device will disconnect the battery automatically. You can program your own fault thresholds and it can handle 40 amps.

SXA-08645 BG-40 DC Isolating Load Protector ..... **$87.00**

## Bias-Tee Power Injector

Is your antenna array far from your shack? Here's a great way to ensure you can still get DC power down your coax to operate your remote tuners, rotor, etc. It works on frequencies from 1 to 60 MHz and has a switch to turn your remote equipment on and off. This unit requires a standard 2.1mm, 1A (max.) power adapter.

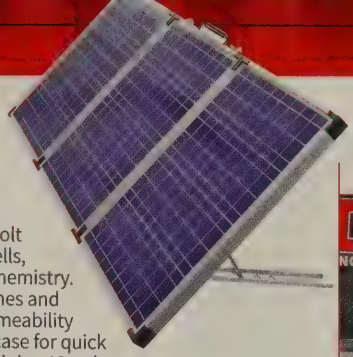
MFJ-4117 Bias-Tee Power Injector ..... **$30.95**

## AC Line RFI Filter

Squash that annoying RF hash coming from your AC power line. This filter significantly reduces the noise, transients and surges coming from your shack and the environment. This unit also features nanosecond-fast over-voltage protection. It is made for 120 Vac and has four receptacles.

MFJ-1164B AC Line RFI Filter ..... **$74.95**

samlexamerica



### Foldable Solar Battery Charging Kits

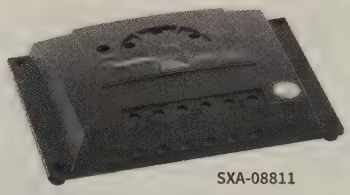
Samlex Solar Portable and Foldable Solar Battery Charging Kits are designed to charge all types of 12 Volt lead-acid batteries. Battery types may include wet cells, SLA, AGM, Gel and VRLA; all of which use lead-acid chemistry. Panels are built with strong anodized aluminum frames and high transparency solar glass for maximum light permeability and high efficiency. Folds away into stylish carrying case for quick transport or storage. Perfect for charging and maintaining 12-volt battery systems during disaster/emergency preparedness operations.

| | | |
|---|---|---|
| SXA-18160 | Solar Battery Charging Kit, Portable, Foldable, Series, PWM, 10A, 135 W, 12V, Kit | $533.00 |
| SXA-18161 | Solar Battery Charging Kit, Portable, Foldable, Series, PWM, 10A, 90 W, 12V, Kit | $391.00 |

SXA-18040

SXA-18039

### Solar Charging Kits



SXA-08811

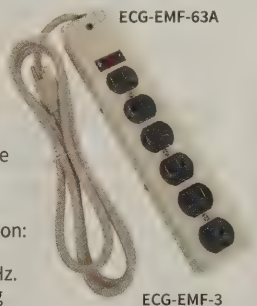
Use the sun to keep your EMCOMM trailer, Field Day setup, QRP rig or virtually any electrical device ready to go at a moment's notice. They are expandable to 500 watts, so they're the perfect starting point to build a comprehensive solar power system. The charging system kits have everything you'll need, except a battery. You can also buy the panel systems separately which have the connection wires and mounting hardware, but don't include the charge controller. See DXEngineering.com for all the details.

| DXE Number | Description | Power (Watts) | Output Current (Amps) | Price |
|---|---|---|---|---|
| SXA-18030 | Charging System | 100 | 5.18 | $515.00 |
| SXA-18040 | Solar Panel Kit | 100 | 5.18 | $346.00 |
| SXA-18029 | Charging System | 150 | 8.16 | $675.00 |
| SXA-18039 | Solar Panel Kit | 150 | 8.16 | $497.00 |
| SXA-08725 | Charge Controller, up to 47V | 240 (Peak) | 6 | $28.70 |
| SXA-08811 | 2-Stage Charge Controller | 240 (Peak) | 10 | $57.00 |

ECG®

ECG-EMF-67

ECG-EMF-63A



### Surge Protectors

You've spent a lot of time and money to build the perfect station. Don't take chances on a box-store AC power strip. These options from ECG are tailor made for Amateur stations.

The EMF-63A has six outlets, each one surge protected from transient spikes up to 15 amps. It has full three-mode protection: hot to neutral, hot to ground and neutral to ground. It also suppresses up to 20 dB of EFI/RFI noise from 150 kHz to 30 MHz. The EMF-67 boasts seven outlets, protected to 15 amps, along with 20 dB of EFI/RFI noise suppression.

ECG-EMF-3

Perfect for vacationing or for ordinary household power needs, the EMF-3 packs two 15A surge-protected AC outlets, plus a pair of 5V/2A USB ports for your phone or tablet. Stuff one in your road bag; you'll use it sooner than you think.

| | | |
|---|---|---|
| ECG-EMF-63A | 6-Outlet Surge Protector | $27.95 |
| ECG-EMF-67 | 7-Outlet Surge Protector | $20.95 |
| ECG-EMF-3 | USB Surge Protector | $17.95 |

### SUNSOCKET ENERGYBAR Portable Power Packs

Aspect Solar Guaranteed Performance™

Toss an ENERGYBAR in your mobile gear to keep your portable electronics powered up in the field. Much more than mere LiFEPO4 battery packs, these lightweight units feature multiple USB ports and a traditional cigarette lighter output. The 250 and 300 models even have a built-in inverter and outlet to power your AC devices. Intuitive displays indicate the ENERGYBARs' remaining battery life. DXEngineering.com has more detailed specs.

You can charge your ENERGYBAR three ways, via an AC source, your vehicle battery or through solar panels (vehicle adapter and solar panels sold separately). They're perfect for your mobile radios, laptops, phones, GPS units, cameras—practically any low-current 12-volt electrical device.

| | | |
|---|---|---|
| ASO-ENERGYBAR100 | ENERGYBAR 100, 8A at 12 Vdc | $260.00 |
| ASO-ENERGYBAR250 | ENERGYBAR 250, 10A at 12 Vdc | $460.00 |
| ASO-DC-154 | ENERGYBAR DC Vehicle Charger | $48.00 |

Aspect Solar Guaranteed Performance™

### DUO-FLEX2 Pro Solar Power Kit

Here's an all-in-one solar power kit. The solar panels feed Aspect Solar's potent 10,000 mAh battery pack, which can then be used to deliver voltage to your USB powered devices. The battery pack has the USB ports built-in, to make the entire kit compact and extremely portable. In fact, the panels zip together in a handy carrying pouch. Aspect Solar even throws in a set of carabiners to hang your panels, plus an AC adapter for charging your battery pack "on the grid." Extra battery packs are sold separately.

| | | |
|---|---|---|
| ASO-DUO-FLEX2PRO | Pro Solar Power Kit | $172.00 |
| ASO-SB-30 | Battery Pack, 8,000 mAh | $39.00 |

Aspect Solar Guaranteed Performance™

### Mini Inverter

This handy inverter plugs right into your vehicle's 12-volt accessory port. It supplies 150 watts (cont.) of 110 Vac power via the built-in AC socket. There's a USB port to keep your smartphone and GPS powered up, too. For the price, keeping one in your glovebox is a no-brainer!

| | | |
|---|---|---|
| ASO-I1-150 | Mini Inverter | $40.00 |

velleman® projects

VEL-SOL5N

### Solar Power Systems

Put Mother Nature to work during your next Field Day. Velleman makes an extensive list of components to allow you to build a comprehensive solar power system. These pieces are the perfect way to start exploring the possibilities of solar power, whether it's for a portable station, science experiment, school project or household application.

| | | |
|---|---|---|
| VEL-SOL2 | Solar Cell, 2.6" x 3.7" x 0.2", 0.5 V, 800mA | $10.25 |
| VEL-SOL4UCN2 | Solar Charge Controller, for SOL8/SOL5N | $29.95 |
| VEL-SOL5N | Solar Charger, 12 Vdc, Suction Cup Panel | $26.95 |
| VEL-SOL8 | Solar Charger, 12 Vdc, Briefcase-Style | $124.95 |

# RigExpert®

### *Antenna Analyzers*

Use these analyzers to test your antennas and feedlines. They'll greatly speed up the troubleshooting and repair process. Professionals have trusted RigExpert analyzers for decades, yet their simple interfaces and straightforward controls make them ideal for hobbyists as well. You can use them for checking coax cable assemblies and measuring the capacitance or inductance of reactive loads.

They're powered by standard AA batteries, or a 5V USB port. You can move across the frequency range in 1 kHz steps, and the minimum sweep range is an impressive 10 kHz. With the exception of the English-only AA-30, the analyzers are multilingual. Unlock even more features by connecting them to a PC.

RigExpert's new SWR2Air mode turns antenna adjustment into a one-person job. It works by transmitting the SWR measurement on a user-specified frequency, so you can hear it on an HT. Simply listen to the length of the audio signal to determine the SWR value.

See the quick specs below for each analyzer and get more detailed information at DXEngineering.com.

| Part Number | Frequency Range | Connector | SWR2AIR Mode? | MultiSWR Mode? | Reference Impedances | Screen (Pixels) | Price |
|---|---|---|---|---|---|---|---|
| REU-AA-30 | 0.1 - 30 MHz | SO-239 | No | No | 50 & 75 Ω | Monochrome (128 x 64) | **$244.95** |
| REU-AA-54 | 0.1 - 54 MHz | SO-239 | No | Yes | 50 & 75 Ω | Monochrome (128 x 64) | **$348.95** |
| REU-AA-55ZOOM | 0.06 - 55 MHz | SO-239 | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$399.95** |
| REU-AA-170 | 0.1 - 170 MHz | SO-239 | No | Yes | 50 & 75 Ω | Monochrome (128 x 64) | **$394.95** |
| REU-AA-230ZOOM | 0.1 - 230 MHz | SO-239 | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$549.95** |
| REU-AA-35ZOOM | 0.06 - 35 MHz | SO-239 | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$269.95** |
| REU-AA-600 | 0.1 - 600 MHz | Type N (F) | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$649.95** |
| REU-AA-1000 | 0.1 - 1000 MHz | Type N (F) | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$894.95** |
| REU-AA-1400 | 0.1 - 1400 MHz | Type N (F) | Yes | Yes | 25, 50, 75 & 100 Ω | Color (320 x 240) | **$1,093.95** |

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

### *Analyzer and NANUK Case Combos*

You rely on precise, accurate diagnostic information from your Antenna Analyzer, so keeping it safe and protected is critical. Problem is, finding a case that fits your analyzer isn't an exact science, and there's usually a lot of trial and error fitment involved.

We've tackled that headache for you, pairing select Comet and RigExpert Antenna Analyzers with perfectly sized NANUK equipment cases. Each case will be filled with cubed, sectioned foam, so you can remove the exact amount you need. Plus, you can remove additional foam if you'd like to include any extra connectors or accessories that may fit in your case.

The combos are available with virtually any color NANUK case, so we won't list every one here. The AA-230 ZOOM combo also includes a case carrying strap. More specs and your color options can be found at DXEngineering.com.

| Part Number* | Analyzer Model | NANUK Case Model | Price |
|---|---|---|---|
| DXE-MARKII-905_ | Comet CAA-500 Mk II | 905 Series | **$514.90** |
| DXE-230ZOOM-905_ | RigExpert AA-230 ZOOM | 905 Series, Strap Included | **$635.95** |
| DXE-55ZOOM-910_ | RigExpert AA-55 ZOOM | 910 Series | **$469.90** |
| DXE-AA1000-910_ | RigExpert AA-1000 | 910 Series | **$964.90** |
| DXE-AA1400-910_ | RigExpert AA-1400 | 910 Series | **$1,163.90** |
| DXE-AA170-910_ | RigExpert AA-170 | 910 Series | **$464.90** |
| DXE-AA30-910_ | RigExpert AA-30 | 910 Series | **$314.90** |
| DXE-AA54-910_ | RigExpert AA-54 | 910 Series | **$418.90** |
| DXE-AA600-910_ | RigExpert AA-600 | 910 Series | **$719.90** |
| DXE-35ZOOM-910_ | RigExpert AA-35 ZOOM | 910 Series | **$339.90** |

***The last character in the part number denotes case color and is left blank. Select your case color at DXEngineering.com.**

DXPATROL

New!

### *Ultra Wide-Band Coverage SDR Receiver MK4*

Using cutting-edge software-defined tech, the DX Patrol Ultra Wide-band Coverage SDR Receiver MK4 gives you incredible 100 kHz to 2 GHz receive range capability with extraordinary dynamic range. But the bigger surprise is the MK4's size—it fits in the palm of your hand. The unit connects to your PC or Android-powered tablet or smartphone via USB to deliver an intuitive display and crystal-clear audio reception.

The MK4 has two separate SMA connectors to add your own HF and VHF antennas. It uses software that's completely free and setup is straightforward. A Micro-USB cable and SMA-to-BNC adapter are included.

DXP-DX-PATROLMK4 Ultra Wide-Band Coverage SDR Receiver MK4..... **$99.95**

iPortable New!

### *iP60z Antenna Analyzer*

Tailor made for portable use, iPortable's iP60z Antenna Analyzer is an ideal tool for running an efficient Field Day or EMCOMM station. It is small and compact, covering 400 kHz to 60 MHz (160 through 6 meters). The analyzer accepts 10 to 650 Ω loads and reads SWR from 1.0 to 9.9. The display is backlit and the unit is powered by a single 9 volt battery.

IPR-IP60Z iP60z Antenna Analyzer ..... **$249.00**

COMET™

### *CAA-500 Mark II Antenna Analyzer*

Improving on the revered CAA-500, the Mark II edition adds a full color LCD screen. The new display can show graphical and numerical SWR, total impedance (with X and R values), frequency and battery life. SWR and impedance are displayed simultaneously, allowing you to easily determine resonant frequency.

The analyzer will scan a frequency range in mere seconds, to make antenna adjustments and troubleshooting much quicker. The analyzer has broad frequency coverage, twin analog meters and two antenna connection jacks. It is powered by six AA batteries, which provide up to 14 hours of operation.

CMA-CAA500MARKII Antenna Analyzer..... **$399.95**

CMA-CAA-5SC Carrying Case..... **$42.95**

HELIOGNOSIS

### Electromagnetic Exposure Meter

Though most Ham stations generate safe levels of electromagnetic radiation, the only way to ensure yours is okay is through continual testing. Priced for the average Ham operator, Heliognosis' Electromagnetic Exposure Meter with its intuitive color-coded display is a smart way to monitor the electromagnetic radiation around you. It provides accurate, dependable readings across the EM spectrum, from 50 Hz to 18 GHz. That means it works for Ham Radio gear and a multitude of other household applications, like AC power lines, Wi-Fi networks, microwaves, florescent tubes and more.

| | | |
|---|---|---|
| HGS-HE-EM2 | Electromagnetic Exposure Meter | $129.95 |

### Analog Multimeter

ECG®

ECG-MC-30

Sometimes the simple needle sweep of an analog meter is the best way to read electrical measurements. The AM-30 is one of ECG's top analog models, with multiple AC/DC voltage range settings, accurate to four percent. It's top range is good to 1,000 volts, and it features built in over-current and reverse polarity protection. The AM-30 can be used to test voltage, current, resistance, continuity, temperature and battery life.

| | | |
|---|---|---|
| ECG-AM-30 | Analog Multimeter | $72.95 |
| ECG-MC-30 | Carrying Case for AM-30 | $9.95 |

### Pocket Analog Multimeter

ECG®

With the ability to check six AC/DC voltage ranges, resistance, current and battery condition, this multimeter packs a ton of features in a small package—and it's easy on the budget, too! Like its bigger brothers, the AM-10 features over-current and reverse polarity protection.

| | | |
|---|---|---|
| ECG-AM-10 | Pocket Multimeter | $11.95 |

### ISM Analyzer

RigExpert®

Specially tailored to the ISM band, this analyzer covers frequencies from 2.3 to 2.6 GHz. You can use it to test, check, tune and repair antennas and feedlines. It's useful for Amateur operators using the 13cm band or anyone who wants to check the status of their Wi-Fi, Bluetooth®, or other proprietary data transfer wireless networks.

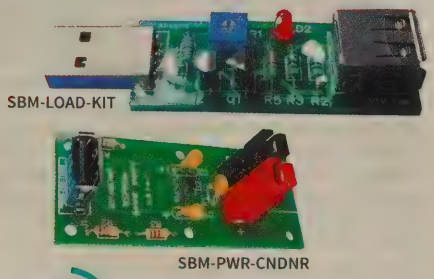
| | | |
|---|---|---|
| REU-IT-24 | ISM Analyzer | $268.95 |

### 100 MHz Oscilloscope Probe

ECG®

An excellent replacement for a missing or damaged probe. It includes a ground-lead clip and hook attachment, plus an insulating tip and an IC tip. The versatile probe also comes with a BNC connector, making it compatible with most popular scopes. A 1x and 10x selector switch (with ground reference setting) makes this a versatile probe for electrical troubleshooting.

| | | |
|---|---|---|
| ECG-PR-100 | Oscilloscope Probe | $41.95 |



SBM-LOAD-KIT

SBM-PWR-CNDNR

SBM-WBSPRLITE

New!

### WSPRlite Propagation and Antenna Tester

SB™

WSPRlite is a specialized WSPR test beacon that transmits to a worldwide network of receiving stations. It works with SOTAbeams' proprietary software to display a transmit signal's geographical range as well as received power on an easy-to-read propagation map. WSPRlite is entirely self contained and covers the 20 and 30 meter bands.

The WSPRlite system requires a PC running SOTAbeams' DXplorer software. The system includes a free, one-year subscription to DXplorer Premium, WSPRlite's web-based reporting dashboard.

SOTAbeams makes a Low Pass Kit to add 160, 80 and 40 meter capabilities to your WSPRlite. The easy-to-assemble PCB module features selectable low-bass filters for 7 MHz, 3.7 MHz and 1.8 MHz.

If you're using a PC-based USB port for power, the Keep-Alive kit will disable any "auto-off" or "sleep mode" features to ensure your WSPRlite stays powered up all the time. DX Engineering also carries a WSPRlite power conditioner and optional enclosure.

| | | |
|---|---|---|
| SBM-WSPRLITE | WSPRlite Propagation and Antenna Tester | $73.95 |
| SBM-LOWPASSKIT | WSPRlite 160, 80 and 40M Add-On Kit | $31.95 |
| SBM-LOAD-KIT | Keep-Alive Load Kit | $11.95 |
| SBM-PWR-CNDNR | WSPRlite Power Conditioner Kit | $15.95 |
| SBM-PWR-CASE | Power Conditioner Kit Enclosure | $11.95 |

**Adapter Cables for the WSPRlite**

| | | |
|---|---|---|
| CMA-HS-05 | RG-188, SMA Male/UHF Female, SO-239, 18" | $14.95 |
| CMA-HS-10 | RG-188, SMA Male/UHF Female, SO-239, 39" | $17.95 |
| DMN-C104SMA | RG-58A/U, SMA Male/UHF Female, SO-239, 4' | $16.95 |

### DM-21 Digital Multimeter

ECG®

Every Amateur Radio operator should have a good, reliable multimeter in their shack. The DM-21 fits the bill nicely, offering a ton of features at a budget-friendly price. It has seven different functions in 11 ranges, which makes it a versatile addition to any hobbyist's or professional's toolkit. In addition to the standard voltage, continuity, current and resistance metering, you can use the DM-21 to test diodes/LEDs and transistors. It even has as an integrated square wave generator. It's over-current and polarity protected, and has a handy tilt-stand for workbench testing.

| | | |
|---|---|---|
| ECG-DM-21 | Digital Multimeter | $34.95 |
| ECG-MC-50 | Carrying Case for DM-21/59 | $7.95 |

### DM-59 Digital Multimeter

ECG®

This is an excellent meter for the homebrew designer, offering 10 functions in 30 ranges. This meteralso has a precision capacitance tester, which is great for troubleshooting older gear. The DM-59 also bundles in a frequency measurement tool, covering 2 kHz to 15 MHz and accurate to +/- 0.1 percent. Find all the details on this meter at DXEngineering.com.

| | | |
|---|---|---|
| ECG-DM-59 | Digital Multimeter | $51.95 |
| ECG-MC-50 | Carrying Case for DM-21/59 | $7.95 |

velleman® projects

### Digital Multimeters

VEL-DVM810

The key to reliable performance is a good set of diagnostic and troubleshooting tools, and a quality multimeter is the cornerstone of any Ham's tool kit. Velleman makes a wide range of digital multimeters, with prices and features tailored to both professionals and hobbyists alike. See the list below and find full specs on each multimeter at DX Engineering.com by typing keywords "VEL Multimeter" into the search box.

| | | |
|---|---|---|
| VEL-DVM810 | Mini, 19 Ranges | $9.95 |
| VEL-DVM850BL | Automatic Polarity Function | $15.95 |
| VEL-DVM-890F | 30 Ranges | $39.95 |
| VEL-DVM-890L | 29 Ranges | $29.95 |
| VEL-DCM266L | Clamp-On | $19.95 |

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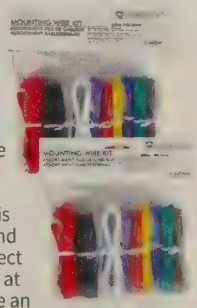
### Hook-Up Wire Assortments



No more scrounging through storage tubs or pillaging old projects for spare wire. Velleman has bundled together 60 meters (about 200 feet) of wire in 20 foot lengths of assorted colors. This 24-gauge copper wire handles 4.3A and is shielded with a PVC jacket. It's perfect for your low-voltage (<60 V) jobs. And at this price, you can buy enough to wire an Apollo Lunar Module!

| | | |
|---|---|---|
| VEL-K-MOW | Stranded | $12.95 |
| VEL-K-MOWM | Solid | $12.95 |

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

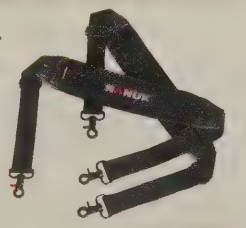
## NANUK Equipment Cases

From arctic blasts to scorching desert heat, NANUK Equipment Cases have been tested and proven in the harshest environments on the planet. They're designed to meet strict military standards and are virtually indestructible. Each one is made from NANUK's exclusive high-impact resin, which means they're extraordinarily strong yet lightweight. A hollow core gasket makes the cases watertight and PowerClaw latches ensure the lids stay closed. They also have built in flanges to accept a padlock. NANUK stands behind all of its cases with a lifetime guarantee.

NANUK Equipment Cases are available in a wide range of sizes. Each one listed below is filled with cubed foam that you can easily pull away to create a custom foam recess for your gear. Most cases are also available empty and a padded foam divider is sold separately to give you more storage options. Additional case sizes, custom foam and accessories are available at DXEngineering.com.

| Part Number | Color | Price |
|---|---|---|
| **905 Series Cases, with foam Ext. Dimensions: 12.5" L x 10.1" W x 6" H** | | |
| PSC-905-1001 | Black | $65.95 |
| PSC-905-1002 | Lime | $65.95 |
| PSC-905-1003 | Orange | $65.95 |
| PSC-905-1004 | Yellow | $65.95 |
| PSC-905-1005 | Silver | $65.95 |
| PSC-905-1006 | Olive | $65.95 |
| PSC-905-1007 | Graphite | $65.95 |
| **910 Series Cases, with foam Ext. Dimensions: 14.3" L x 11.1" W x 4.7" H** | | |
| PSC-910-1000 | Tan | $69.95 |
| PSC-910-1001 | Black | $69.95 |
| PSC-910-1002 | Lime | $69.95 |
| PSC-910-1003 | Orange | $69.95 |
| PSC-910-1004 | Yellow | $69.95 |
| PSC-910-1005 | Silver | $69.95 |
| PSC-910-1006 | Olive | $69.95 |
| PSC-910-1007 | Graphite | $69.95 |
| **935 Series Wheeled Cases, with foam Ext. Dimensions: 22" L x 14" W x 9" H** | | |
| PSC-935-1001 | Black | $199.95 |
| PSC-935-1003 | Orange | $199.95 |
| PSC-935-1004 | Yellow | $199.95 |
| PSC-935-1005 | Silver | $199.95 |
| PSC-935-1006 | Olive | $199.95 |
| PSC-935-1007 | Graphite | $199.95 |
| **960 Series Wheeled Cases, with foam Ext. Dimensions: 25.4" L x 20" W x 14.5" H** | | |
| PSC-960-1001 | Black | $409.95 |
| PSC-960-1003 | Orange | $409.95 |
| PSC-960-1004 | Yellow | $409.95 |
| PSC-960-1007 | Graphite | $409.95 |

plasticase NANUK PROFESSIONAL PROTECTIVE CASES



## NANUK Genuine Accessories

NANUK makes a ton of accessories for your new case. Two of the most popular are its TSA Combination Padlock and Neoprene Shoulder Strap. The padlock has a three-digit combination key and is TSA-approved. A visual indicator on the lock lets you know if the TSA inspectors opened your case. The adjustable shoulder strap features padded foam for comfort. Metal buckles contribute to the strap's durability.

PSC-900LOCKNANUK Combination Padlock ..... $29.95
PSC-900-STRAP Neoprene Strap ..... $29.95

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

## NANO Equipment Cases

Perfectly sized for smaller gear like smartphones, HTs and digital cameras, NANO Equipment Cases have the same crushproof and water resistant characteristics of NANUK's larger cases. NANO Cases are feature the exclusive Powerclaw™ latching system and are airline carry-on approved. These cases also accept a padlock and include a small wrist strap. Exterior dimensions: 7.4" L x 5.1" W x 2.6" H

**NANO Equipment Cases**

PSC-330-0001 Black ..... $35.95
PSC-330-0002 Translucent Lime ..... $35.95
PSC-330-0003 Translucent Orange ..... $35.95
PSC-330-0008 Translucent Blue ..... $35.95
PSC-330-0009 Translucent Red ..... $35.95
PSC-330-0011 Clear ..... $35.95
PSC-330-0012 White ..... $35.95
PSC-330-0013 Translucent Purple ..... $35.95

SUMMIT RACING EQUIPMENT

## Stainless Steel Digital Caliper

The only way to make precise outside, inside, step and depth measurements, this ultra-accurate caliper is made to provide years of service. A large LCD screen makes it easy to use. The caliper also features SAE-to-metric conversion, an on/off switch, locking thumb wheel and an instant zero setting.

SUM-900001 Stainless Steel Digital Caliper ..... $24.97

SUMMIT RACING EQUIPMENT

## Solderless Nylon Terminal Kit

A great kit to have in your shack, this kit includes connectors that are tougher, better insulated and more corrosion-resistant than ordinary store-bought ones. You get 180 connectors for 22- to 18- and 12- to 10-gauge wire ranges, all packaged in a neat storage case.

SUM-890093 Solderless Nylon Terminal Kit ..... $26.97

## LED Light Strip

If you need a light source for your shack that won't draw a lot of power or generate excess heat, here is your solution. This trim-to-length 12-volt LED Light Strip can go underneath a shelf, in the back of a cabinet or in your car's trunk. It emits 200 lumens (the equivalent of a 12 watt fluorescent tube), yet only uses a maximum of 700mA. It comes with plastic caps for easy mounting.

HSC-LIGHTSTRIP LED Light Strip ..... $14.95
HSC-ENDCAPS Additional End Caps, Pack of 2 ..... $2.00

## No License Required!

ALINCO

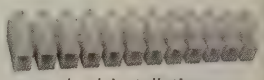
## UHF FRS Transceiver

Way better than a box-store walkie-talkie, Alinco's DJ-FX45 is a great way to stay in touch with friends and family at ball games, amusement parks, malls and campgrounds. This radio is also an economical alternative to a cell phone, because the airtime is free. It packs the full transmit power allowed by the FCC and it works on all 14 of the Family Radio Service channels. Best of all, you don't need a license to use one, so they're perfect for introducing youngsters to the radio hobby!

It comes with a belt clip, Li-Ion battery pack and charger.

ALO-DJ-FX45 UHF FRS Transceiver ..... $39.95

NTE ELECTRONICS, INC.



## Barrier Strips

As the foundation of a permanent shack installation, these 12-pole Euro-style barrier strips ensure the best signal paths possible. They also make it easy to diagnose connectivity issues and present a professional appearance. The strips are rated to 300 volts.

| Part Number | Rated Current | Wire Gauge | Pitch | Price |
|---|---|---|---|---|
| NTE-25-E2000-12 | 20A | 20-12 | 8.2mm | $4.95 |
| NTE-25-E2100-12 | 30A | 18-10 | 10mm | $5.95 |
| NTE-25-E2300-12 | 30A | 12-10 | 15mm | $6.95 |
| NTE-25-E2200-12 | 50A | 14-8 | 11.5mm | $5.95 |

## Test Jumpers and Clip Leads

NTE ELECTRONICS, INC.

NTE-72-111

Perhaps the most useful tools in electrical troubleshooting and project building. The jumpers are about 12" long and are sold in packs of 10 multicolored assemblies. The plunger clip leads are handy—whether you're working on PCBs or point-to-point wiring.

NTE-72-111 Test Jumpers ..... $9.95
NTE-72-110 Clip Leads ..... $17.55

## Never-Seez®

- Prevents galling and galvanic corrosion
- Protects metal parts against rust, corrosion and seizure

DXE-NSBT8 Never-Seez, 8 Oz. Brush Top ..... $19.95
DXE-NMCBT8 Never-Seez, Marine Grade, 8 Oz. Brush Top ..... $26.95

**Hazardous, limited to domestic UPS Ground shipping only.**

3M

## 3M™ Dry Type Silicone Lubricant

Spray Silicone Lubricant is an aerosol lubricant designed for a variety of lubricating applications. It is a versatile product which is used for lubricating moving parts, eliminating squeaks caused by friction; protecting against rust and corrosion; sealing out moisture; preventing buildup of glues, waxes, inks, paints, etc.; preserving plastics, rubber, leather; and prolonging the life of cutting tools. It does not contain petroleum oils. It will not stain or become gummy.

TES-08897 Silicone Lubricant (Dry Type) ..... $8.97

### Penetrox™ A Electrical Joint Compound

Use Penetrox A Electrical Joint Compound to ensure a proper electrical connection between your aluminum and copper metal parts. This stuff works great on conductors, telescoping aluminum tubing, or other antenna and grounding components. Penetrox A Electrical Joint Compound ensures high conductivity at all voltage levels by preventing corrosion and oxidation. It is perfect for all aluminum-to-aluminum, aluminum-to-copper tubing or bare conductor connections; you should not use this on rubber or polyethylene insulated wire.

DXE-P8A — Penetrox A Electrical Joint Compound, 8 oz. Bottle ..... **$16.95**

DXE-PENA-1-2 — Penetrox A Electrical Joint Compound, 1/2 oz. Tube..... **$4.95**

### Anti-Seize Lubricant

Permatex

Anti-Seize Lubricant is absolutely critical for tower and antenna building, and it's also important for assembling chassis. It can prevent galling, corrosion and seizing, which means your parts will come apart easily, even if they've been outside for years.

PTX-81343 — Anti-Seize Lubricant, 1 Oz. Tube ..... **$3.29**

PTX-80071 — Anti-Seize Lubricant, 4 Oz. Brush-Top Bottle..... **$6.99**

**Hazardous, limited to domestic UPS Ground shipping only.**

### Dielectric Grease

Permatex

Isolate precision electrical connections and seal out moisture. There are hundreds of uses for Dielectric grease, ranging from coax connectors and spark plug boots to bulb sockets and panel feed-throughs.

PTX-22058 — Dielectric Grease, 3 Oz. Tube ..... **$9.99**

**Hazardous, limited to domestic UPS Ground shipping only.**

### Dielectric Grease

LOCTITE

Put this on your connectors to ensure moisture stays out and your continuity remains consistent. Dielectric grease will also keep you connectors from corroding and seizing, making them easier to separate, when the time comes.

LCT-37534 — Dielectric Grease 0.33 Oz. Tube..... **$3.49**

### RTV Silicone

Permatex

Ensure your equipment stays watertight, but be careful: ordinary silicone shouldn't be used on aluminum. Instead use Ultra Black, it's safe for use on aluminum and can withstand temperatures up to 500 degrees F.

General-purpose clear silicone is a great way to seal up plastic housings and enclosures. Put a little dab in your bolt and screw recesses to keep rainwater out, too!

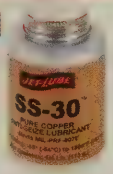
PTX-82180 — Ultra Black RTV Silicone, 3.35 Oz. Tube ..... **$5.99**

PTX-80050 — Clear RTV Silicone, 3 Oz. Tube ..... **$4.99**

**Hazardous, limited to domestic UPS Ground shipping only.**

### Jet-Lube® SS-30™

JET-LUBE




An absolute must-have when making metal-to-metal connections on outdoor gear. Jet-Lube SS-30 Pure Copper is both an anti-seize lubricant and a conductive termination compound. That means it will prevent galling and create a more reliable electrical connection.

JTL-12555 — 0.25 Lb. Brush-Top Can ..... **$13.95**

JTL-12502 — 0.50 Lb. Brush-Top Can ..... **$26.95**

3M

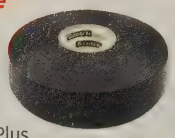
### Electrical Moisture Sealing Tape

Good up to 600 volts, use this tape to make your outdoor cables and connections watertight. It can also cover your terminals and works well for general household electrical connections, like floodlights and lampposts. The tape is self-fusing and resistant to UV rays and corrosion. It is sold in 2.5" by 10' rolls, or in handy 2.5" x 2.5" square pads.

TES-06147 — Electrical Moisture Sealant Tape, 10' Roll ..... **$21.95**

TES-06149 — Electrical Moisture Sealant Pads, Box of 25 ..... **$17.95**

### Scotch® Super 88 Premium Vinyl Electrical Tape



Thicker and stronger than most vinyl electrical tapes, Super 88 is an excellent way to keep moisture out of your connectors. It insulates up to 600 volts and is resistant to sunlight, moisture, corrosion and chemicals. Plus, it's designed to perform well in temperatures from 0-220°F (-18-105°C).

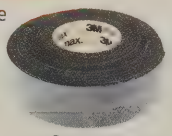
TES-06143 — Premium Vinyl Electrcial Tape... **$5.55**

### Scotch® Super 33+ Vinyl Electrical Tape

Scotch Super 33+ is highly conformable and stretchable, making it suitable for all weather applications. The tape combines PVC backing with excellent electrical insulation (up to 600V) to provide protective jacketing for cable splices. It is recommended as a protective overwrap for 3M Temflex™ Rubber Splicing Tape when used for RF connector weatherproofing.

TES-06132 — Vinyl Electrical Tape..... **$4.95**

### Temflex™ 2155 Rubber Splicing Tape



3M Temflex 2155 Rubber Splicing Tape is a conformable, self-fusing rubber electrical insulating tape. Designed for low voltage electrical insulating and moisture sealing applications, the rubber-based tape is capable of operating in temperatures up to 80 degrees C. It is compatible with synthetic cable and wire insulations, and is not corrosive to aluminum or copper conductors. For outdoor use, the tape should be protected from UV deterioration with an overwrap of Scotch Super 33+ Vinyl Electrical Tape.

TES-2155 — Rubber Splicing Tape ..... **$4.55**

• TRUSTED QUALITY SINCE 1921 •
RUST-OLEUM®

### NeverWet

This is one of the most innovative products to hit our hobby since the spark-gap transmitter. This two-step coating system essentially creates a watertight surface that resists moisture. Check out some of the demonstrations all over the web and you can see how useful NeverWet would be around your shack, antenna farm or mobile rig.

RLL-274232 — NeverWet ..... **$16.97**

CAIG LABORATORIES, INC.

### DeoxIT® D5 Contact Cleaner

DeoxIT D5 has become synonymous with electrical cleaning solutions, and for good reason. When sprayed on an electrical contact, it dissolves oxidation and corrosion to improve conductivity. The solution fills in microscopic gaps, essentially resealing the original metal. That makes DeoxIT D5 ideal for connectors, relays, bulb/fuse receptacles, pots, cartridge slots, etc. In RF applications, DeoxIT D5 has been shown to reduce arcing, RFI and connector wear. It's safe for plastics and dries without a residue.

CAG-D5S-6 — DeoxIT® D5 Contact Cleaner.... **$19.95**

CAIG LABORATORIES, INC.

### DeoxIT® Cleaning Solutions from CAIG Laboratories

Regular care and maintenance of sensitive electronic gear is a crucial part of station performance. Cleaning products from CAIG Laboratories are specially formulated to be safe and effective on precision telecommunications equipment. They can rejuvenate old gear, making your audio clearer, signal stronger and your station more reliable.

**DeoxIT® Gold G5 Spray**
It's formulated specifically for gold-plated connectors, but works equally well on silver, brass and copper.

CAG-G5S-6 — DeoxIT Gold G5 Spray..... **$27.95**

**DeoxIT® DN5 Spray**
This non-flammable contact cleaner spray dries quickly and won't drip, perfect for use around heat or on a crowded PCB.

CAG-DN5S-6N — DeoxIT DN5 Spray ..... **$32.95**

**DeoxIT® D100 Spray**
D100 is pure, 100% DeoxIT Cleaner for areas that need maximum lubrication. To reduce overspray, the can has a metered one-shot dispenser.

CAG-D100S-2 — DeoxIT D100 Spray..... **$23.95**

**DeoxIT® Screen Cleaner**
Don't use harmful ammonia-based window cleaner on your electronic displays and screens, use this. It comes with a microfiber cloth.

CAG-CCS-503 — DeoxIT Screen Cleaner ..... **$10.95**

### DeoxIT® Cleaning Kits

CAIG LABORATORIES, INC.

CAIG bundled together some of its most popular cleaners into handy kits. They're ideal for tossing in a Go-Kit or your glove box. If your club has an EMCOMM trailer, it's not a bad idea to stuff a kit in there, too.

**DeoxIT® Emergency Survival Kit**
This kit comes with the DN5 Spray, a D100 Pen, a D100 Squeeze Tube, plus three D1W wipes. It's handy if your need to recondition your HT or flashlight in an emergency.

CAG-K-DEO-ESK — DeoxIT Emergency Kit..... **$24.95**

**DeoxIT® Audio/Video Survival Kit**
Do you have an aging home theater system? This kit will help you keep it in tip-top shape. It includes an assortment of cleaner sprays, swabs, brushes and wipes.

CAG-SK-AV35 — DeoxIT Audio/Video Survival Kit..... **$42.95**

**DeoxIT® Mini-Spray Kit**

Here's a great kit for backpacking, vacationing, or boating. It bundles two small, pocket size cans of DeoxIT D5 and G5 together for cleaning in the field.

CAG-DGN5MS-15 — DeoxIT Mini-Spray Kit..... **$19.95**

American Beauty

### Heavy Duty Soldering Irons

Well suited for assembly line electronic production, these irons can handle constant use. They feature an innovative compression-wound heating element that can maintain a constant temperature. The 100-250 watt irons include a diamond tip; the tip is sold separately for the AMB-3178LT-300.

| | | |
|---|---|---|
| AMB-3138-100 | Heavy-Duty Iron, 100 Watts | $116.88 |
| AMB-3138-150 | Heavy-Duty Iron, 150 Watts | $116.88 |
| AMB-3138X-175 | Heavy-Duty Iron, 175 Watts | $125.63 |
| AMB-3158-200 | Heavy-Duty Iron, 200 Watts | $160.82 |
| AMB-3158X-250 | Heavy-Duty Iron, 250 Watts | $169.66 |
| AMB-3178LT-300 | Heavy-Duty Iron, 300 Watts | $156.91 |

**Pencil-Style Soldering Irons**

Professional quality irons, priced for the hobbyist. You can rely on them to provide consistent temperatures for all of your projects. They're comfortable and maneuverable, ideal for tight chassis and precise solder joints.

| | | |
|---|---|---|
| AMB-3110-30 | Pencil-Style Iron, 30 Watts | $60.52 |
| AMB-3112-60 | Pencil-Style Iron, 60 Watts | $68.43 |

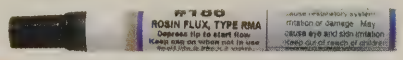
**More Soldering Irons Online** - You'll find a huge range of soldering irons available at DXEngineering.com. You'll be able to select the perfect iron for your bench online.

American Beauty

### Dri-Wick Desoldering Braids

Whether you're working on a PCB or point-to-point circuits, Dri-Wick Desoldering Braids will make desoldering jobs much easier (and much safer for your gear). This 100 percent copper wick is coated with flux, which will help the solder pull cleanly and quickly off of the component.

| Part Number | Braid Width | Spool Length | Price |
|---|---|---|---|
| AMB-484-1G | .035" | 5' | $2.98 |
| AMB-484-2G | .055" | 5' | $3.19 |
| AMB-484-3G | .075" | 5' | $3.40 |
| AMB-484-4G | .098" | 5' | $3.61 |
| AMB-484-5G | .130" | 5' | $3.83 |
| AMB-485-8C | .093" | 8' | $5.10 |




kester CONNECTING INNOVATION

### Flux Pen

Apply your solder flux with ease and precision, and keep your PCBs clean and attractive. Kester 186 is an RMA-type flux that retains high thermal stability, and any residue left after soldering is typically OK for most electrical applications.

KTR-83-1000-0186 Flux Pen ..... $8.95

ISO-TIP Tools worth discovering

### Silver Bearing Solder Paste

Make your tough soldering job easier. Simply use the syringe to apply ISO-TIP's Solder Bearing Paste to your solder joint, hit it with your iron and the solder will flow right in—no mess and no clumsy wire feeding. It works with all ferrous and non-ferrous materials, including steel, bronze, chrome, silver and more. That means its perfect for wires, cable, connectors, plumbing/piping, and more. Read how it works at DXEngineering.com.

ISO-7459 Silver Bearing Solder Paste ..... $9.25

ECG

### De-Soldering Iron

Here's an easy way to remove solder from a PCB without damage. It's essentially a soldering iron with a de-soldering bulb connected via a specially designed tip. Use it once, and you'll wonder how you ever worked without it.

ECG-J-045-DS De-Soldering Iron ..... $23.95

CAIG LABORATORIES, INC.

### DeoxIT® Rosin Soldering Flux

Formulated to improve solder flow, this non-corrosive flux can be wiped off easily without leaving a residue.

CAG-RSF-R80-2 DeoxIT Rosin Soldering Flux..... $8.95

kester CONNECTING INNOVATION

### Solder

Kester has over a century of experience making the finest quality solder on the market. This solder is ideal for sensitive electronic and telecommunication equipment. This chart is just the tip of the iceberg, visit DXEngineering.com for more solder options.

| Part Number | Type | Gauge | Melting Point (F) | Price |
|---|---|---|---|---|
| **Pocket-Pak** | | | | |
| KTR-83-7145-0415 | Rosin-Core | 24 | 354° | $3.75 |
| KTR-83-4000-0000 | Rosin-Core | 20 | 361° | $2.95 |
| KTR-83-7068-1402 | Rosin-Core, Lead Free | 20 | 425° | $4.95 |
| **Kwik-Draw** | | | | |
| KTR-83-3000-0000 | Rosin-Core | 18 | 361° | $4.95 |
| **1 Lb. Spool** | | | | |
| KTR-24-6337-8817 | 245, No-Clean | 14 | 361° | $34.95 |
| KTR-24-6337-6401 | 331, Water Soluble Flux | 24 | 361° | $45.95 |
| KTR-24-6337-6411 | 331, Water Soluble Flux | 14 | 361° | $33.95 |
| KTR-24-6040-0027 | 44, Rosin-Core | 20 | 361° | $35.95 |
| KTR-24-7068-7601 | 275, Lead-Free, No-Clean | 20 | 425° | $95.95 |

ECG

### Butane Soldering Kit

If you've got a base station antenna, then you already know how handy a portable soldering iron is. The J-700KT can be used as a soldering iron, hot knife, torch or heat gun. That means it's perfect for replacing connectors, repairing solder joints, or even melting ice from guy lines and antenna elements. It reaches operating temperature in seconds, and you can set the temperature from 410 to 850 degrees F, equivalent to a 25-80 watt electrical iron. (Torch operation reaches 2,500 degrees F.) At its mid-level setting, a single canister of butane will last for about 120 minutes of continuous use.

ECG-J-700KT Butane Soldering Kit ..... $65.95

ECG-JT-002 Replacement Chisel Tip for J-700KT ..... $11.95

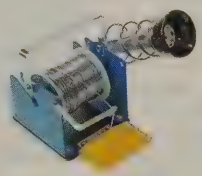
ECG

### Pencil Style Soldering Irons

These are excellent irons for your shack, toolbox or road-kit. They're available in multiple temperature ratings and boast a precision conical tip. A folding iron stand is included.

| Part Number | Watts | Max Temp (F) | Tip | Price |
|---|---|---|---|---|
| ECG-J-012 | 12 | 680° | Needle Point Conical | $20.95 |
| ECG-J-020 | 20 | 950° | Needle Point Conical | $21.95 |
| ECG-J-025 | 25 | 464° | Needle Point Conical | $12.95 |
| ECG-J-040 | 40 | 750° | Needle Point Conical | $15.95 |
| ECG-J-060 | 60 | 860° | Conical | $18.95 |
| ECG-J-060VT | 25-60 (adj.) | 860° | Conical | $26.95 |

velleman projects



VEL-VTSS4NU VEL-STAND60 VEL-VTSS5U

### Soldering Iron Stations

If you're like us, then your iron probably spends more time in your hand than in a cradle. Even so, a good soldering station can help you stay organized and finish jobs faster.

| | | |
|---|---|---|
| VEL-STAND60 | Soldering Stand, with Holder, Sponge and Solder Reel | $12.95 |
| VEL-VTSS4NU | Soldering Station, Adjustable Temp., with 45 W Iron | $24.95 |
| VEL-VTSS5U | Soldering Station, Adjustable Temp., with 50 W Iron | $59.95 |

ISO-TIP
Tools worth discovering

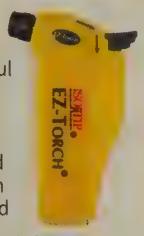
## Rechargeable Soldering Irons

ISO-TIP offers cordless soldering irons that heat up quickly, provide high operating temperatures and have a long service life. Here are some of its most popular irons.

### Butane Torches

A portable torch is handy for the Ham who does a lot of antenna work in the field. They deliver a pinpoint, 2,400° F heat source, useful for soldering tubing, melting ice off guy lines and cutting through plastic enclosures. They have a refillable butane tank and are compact enough to slip into your pocket.

The Smart Torch EZ features a child-resistant ignition system and a butane tank good for about 20 minutes of use. The Smart Torch Titan has an easily adjustable flame and a large butane tank good for 30 minutes of continuous operation.



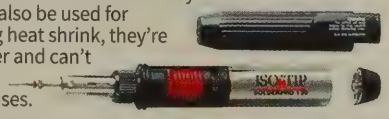
ISO-7978

| | | |
|---|---|---|
| ISO-7978 | Smart Torch EZ Portable Butane Torch | $19.95 |
| ISO-9004* | Smart Torch Titan Portable Butane Torch | $11.55 |

*Due to shipping restrictions these torches ship without butane.

### Butane Torches

As an alternative to ISO-TIP's battery powered options, these butane soldering irons are ideal if you're doing remote field work away from a charging source. Since they can also be used for brazing, cutting, de-icing and activating heat shrink, they're a smart choice if you're climbing a tower and can't carry a bunch of tools. The kits include the iron and multiple tips for different uses.



ISO-7977

| | | |
|---|---|---|
| ISO-7977 | Pro 120 Butane Soldering Iron Kit | $72.95 |
| ISO-9010* | Pro 90 Butane Soldering Iron Kit | $49.95 |

*Due to shipping restrictions these torches ship without butane.

### Model 7700

As ISO-TIP's flagship iron, the 7700 is a well rounded iron for shop and shack use. It can be completely recharged in 3-4 hours, and will solder up to 125 joints on a single charge. The iron comes with a handy charging stand and a pair of interchangeable tips. Model 7700 is also available in a kit that includes more tips, solder, heat shrink tubing, flux, a butane torch, cleaning pad and a handy carrying case.

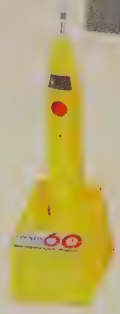
ISO-7700

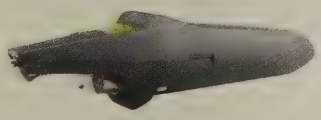
| | | |
|---|---|---|
| ISO-7700 | Model 7700 Rechargeable Soldering Iron | $50.95 |
| ISO-7710 | Model 7700 Rechargeable Soldering Iron Kit | $99.95 |

### Model 7800

This iron boasts the fastest recharge time of any ISO-TIP iron. It can be fully recharged in an hour and resting it in its stand for quick charges between uses means it can last even longer.

| | | |
|---|---|---|
| ISO-7800 | Model 7800 Rapid Charge Soldering Iron | $69.95 |





### Model 7904

Packing a long life battery, Model 7800 is capable of over 30 minutes of continuous duty. It's perfect for field use, where you don't have easy access to a charger.

| | | |
|---|---|---|
| ISO-7904 | Model 7904 Long Life Soldering Iron | $71.95 |

NTE ELECTRONICS, INC.

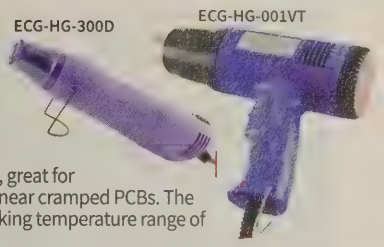
## Heat Shrink Sleeves

These tough, durable heat shrink sleeves are an excellent choice for sealing and insulating your cable runs. They'll work inside and outside of your shack, including in direct-burial and submersible applications.

| Part Number | Diameter(s) | Length | Quantity | Color | Price |
|---|---|---|---|---|---|
| **Single Sections, Thick Wall, 3:1 Shrink Ratio** | | | | | |
| NTE-47-404013-BK | 1.57" | 48" | 1 | Black | $31.95 |
| NTE-47-400328-BK | 1.06" | 48" | 1 | Black | $27.95 |
| NTE-47-400206-BK | 0.79" | 48" | 1 | Black | $20.95 |
| NTE-47-400124-BK | 1.27" | 48" | 1 | Black | $16.95 |
| **Assortment Packs, Thin Wall, 2:1 Shrink Ratio** | | | | | |
| NTE-HS-ASST-1 | 3/32"-1/2" | 6" | 24 | Black | $7.55 |
| NTE-HS-ASST-2 | 1/16"-1/2" | 2.5" | 158 | Black | $14.95 |
| NTE-HS-ASST-3 | 1/16"-1/2" | 2.5" | 158 | Red | $15.95 |
| NTE-HS-ASST-4 | 1/16"-1/2" | 4" | 24 | Black | $6.95 |
| NTE-HS-ASST-5 | 1/8" | 6" | 10 | Assorted | $6.25 |
| NTE-HS-ASST-6 | 3/16" | 6" | 10 | Assorted | $6.55 |
| NTE-HS-ASST-7 | 1/4" | 6" | 10 | Assorted | $6.25 |
| NTE-HS-ASST-8 | 3/8" | 6" | 10 | Assorted | $6.95 |
| NTE-HS-ASST-9 | 1/16"-3/8" | 4" | 160 | Assorted | $18.95 |
| NTE-HS-ASST-10 | 1/16" | 6" | 10 | Assorted | $6.25 |
| NTE-HS-ASST-11 | 3/32" | 6" | 10 | Assorted | $6.25 |
| NTE-HS-ASST-12 | 1/2" | 6" | 10 | Assorted | $7.75 |
| **Assortment Pack, Dual Wall, 3:1 Shrink Ratio** | | | | | |
| NTE-HS-ASST-13 | 1/8"-3/4" | 4" | 72 | Black | $27.95 |

ECG®

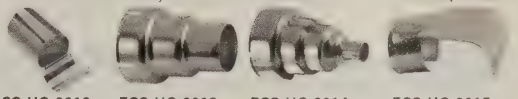
## Heat Guns and Accessories


ECG-HG-300D ECG-HG-001VT

You wouldn't use a butter knife as a screwdriver, so don't use a hair dryer as a heat gun. With an adjustable range of 250 to 1,100 degrees F and a 2-speed motor, the HG-001VT is perfect for hobbyists. ECG also makes a Miniature Heat Gun, great for installing heat shrink tubing into tight chassis or near cramped PCBs. The Mini Heat Gun has a two-speed motor and a working temperature range of about 480 to 660 degrees F.

For more frequent use, get an Industrial Grade ECG Heat Gun. They boast an adjustable air intake, a sturdy toggle switch, replaceable motor brushes and a six-foot heavily shielded cord. The Industrial Grade guns all have a mica heating element for extra long service lives.

| | | |
|---|---|---|
| ECG-HG-001VT | Economy Heat Gun | $49.95 |
| ECG-HG-300D | Mini Economy Heat Gun | $25.95 |
| ECG-HG-005 | Industrial Grade Heat Gun, 500-750° F | $159.95 |


ECG-HG-0010 ECG-HG-0013 ECG-HG-0014 ECG-HG-0015

| Accessories | | |
|---|---|---|
| ECG-HG-0010 | 3/4" Reflector for Industrial Grade Heat Guns | $11.95 |
| ECG-HG-0011 | 2" Reflector for Industrial Grade Heat Guns | $11.95 |
| ECG-HG-0013 | 7/8" Heat Concentrator for Economy Heat Gun | $5.75 |
| ECG-HG-0014 | 3/8" Heat Concentrator for Economy Heat Gun | $5.75 |
| ECG-HG-0015 | Shrink Tube Reflector for Economy Heat Gun | $5.75 |

velleman projects

## Learn-to-Solder and Soldering Starter Kits

VEL-EDU03U

Soldering is one of the fundamental skills required for any sort of electronic tinkering. These kits from Velleman are excellent tools to teach anyone the proper solder techniques. The two kits both include a soldering iron, but if you've already got the components, Velleman makes a nice beginner's iron available separately.

Velleman also offers a more basic kit that demonstrates the basics of electronic circuits using real discrete components—not toys or "play" pieces. These kits are a great way to get anyone started on an electronics hobby.

| | | |
|---|---|---|
| VEL-EDU03U | Start to Solder Educational Kit, with Iron and Minikits | $44.95 |
| VEL-K-STARTULF | Soldering Starter Kit, with Iron, Cutters, and PCB | $30.95 |
| VEL-EDU01 | Solderless Educational Starter Kit, with 10 Projects | $24.95 |
| VEL-K-SOLD2NU | Soldering Set, with Iron, Stand, Desolder Tool and Solder | $18.95 |

SUMMIT RACING EQUIPMENT

## Shrink Sleeve Assortment

Way better than standard vinyl heat-shrink tubing (which can crack and tear), this tubing is made with professional-grade polyolefin. That helps it better withstand both time and the elements. This kit includes over sixty 6 inch tubes ranging from 1/8" to 3/4" ID, all housed in a compartmentalized case, so everything stays neat and tidy.

| | | |
|---|---|---|
| SUM-890092 | Shrink Sleeve Assortment | $19.97 |

DX ENGINEERING

## Adhesive Lined Heat Shrink Tubing

Insulate and protect your connections without the hassle of tape, using DX Engineering Adhesive Lined Heat Shrink Tubing. It's also perfect for repairing nicks in a cable jacket or for dressing-up your in-shack runs. Both packs include 20 individual 1.5" lengths of tubing, each with a 3:1 shrink ratio.

| | | |
|---|---|---|
| DXE-HS38-20 | Heat Shrink Tubing, 0.375" OD | $7.95 |
| DXE-HS12-20 | Heat Shrink Tubing, 0.500" OD | $9.95 |

### Rip-Ties®

Good cable management is the key to a well-organized shack. These reusable Rip-Ties let your tidy up those loose cables and organize your cable runs. You can also use these Rip-Ties to neatly store spare cables and antenna wire for your portable/Field Day station. Sold individually.

RIP-TIE FUZZY CABLE WRAPS™

| Part Number | Size | Color | End | Price |
|---|---|---|---|---|
| DXE-H-06-1PK-RD | 9" x 1" | Red | Nylon Tie | $7.95 |
| DXE-H-06-1PK-BU | 9" x 1" | Blue | Nylon Tie | $7.95 |
| DXE-HB-06-1PK-RD | 9" x 1" | Red | Buckle | $9.95 |
| DXE-HB-06-1PK-BU | 9" x 1" | Blue | Buckle | $9.95 |
| DXE-RLH0951PK-BK | 9.5" x 1" | Black | Rip-Lock | $9.95 |

NTE ELECTRONICS, INC.

### Hook and Loop Cable Ties

These straps are reusable and are made from soft material to prevent damaging the cable jacket. They're good for indoor and outdoor use and are sold in packs of 10. More color options are available at DXEngineering.com.

| Part Number | Length | Width | Weight Rating | Color | Price |
|---|---|---|---|---|---|
| NTE-04-0533HL0 | 4.92" | 0.47" | 33 Lbs. | Black | $6.25 |
| NTE-04-0533HLMC | 4.92" | 0.47" | 33 Lbs. | Assorted | $6.25 |
| NTE-04-0640HL0 | 5.91" | 0.47" | 40 Lbs. | Black | $6.25 |
| NTE-04-0640HLMC | 5.91" | 0.47" | 40 Lbs. | Assorted | $6.25 |
| NTE-04-0840HL0 | 7.87" | 0.47" | 40 Lbs. | Black | $7.25 |
| NTE-04-0840HLMC | 7.87" | 0.47" | 40 Lbs. | Assorted | $7.25 |
| NTE-04-1040HL0 | 9.45" | 0.51" | 40 Lbs. | Black | $7.95 |
| NTE-04-1040HLMC | 9.45" | 0.51" | 40 Lbs. | Assorted | $7.95 |

NTE-04-0750ID0

NTE-04-0418ID9

NTE ELECTRONICS, INC

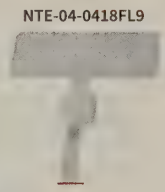
NTE-04-0750ID9

### Flag and ID Cable Ties

Cable management 101: label everything! These handy ties help you clean up your wiring and make it easy to install or remove gear. Identifying your cables also speeds up the troubleshooting process. They're sold in packs of 100.

| | | |
|---|---|---|
| NTE-04-0418FL9 | Flag Cable Ties, 4.3" Long | $10.95 |
| NTE-04-0418ID9 | Flag Cable Ties, 4" Long | $9.95 |
| NTE-04-0750ID0 | ID Cable Ties, 7.8" Long, Black | $17.25 |
| NTE-04-0750ID9 | ID Cable Ties, 7.8" Long, Clear | $17.75 |
| NTE-04-1450ID9 | ID Cable Ties, 14.1" Long, Clear | $36.95 |

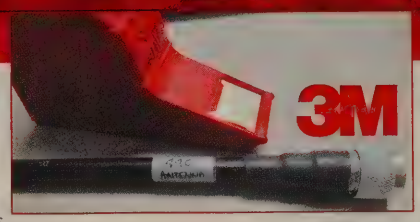
NTE-04-0418FL9



### Nylon Zip Tie Mounting Pads

Simply stick one of these pads to a flat surface and it becomes a reliable place to thread your cable ties. You can tidy up wires behind your bench, clean up the wall of your shack and even use them around the house. For added support, you can thread in a size 6 or size 4 screw. Sold in sets of 100.

| | | |
|---|---|---|
| NTE-04-MPA10000 | Zip Tie Mounting Pads, 1" Square, Black | $19.95 |
| NTE-04-MPA10009 | Zip Tie Mounting Pads, 1" Square, Clear | $19.95 |
| NTE-04-MPA7500 | Zip Tie Mounting Pads, 0.75" Square, Black | $17.95 |
| NTE-04-MPA7509 | Zip Tie Mounting Pads, 0.75" Square, Natural | $17.95 |



### Write-On Wire Marker Tape Dispenser

Quickly decipher that bird's nest behind your desk! This tape from 3M is designed for identifying cable runs, but you can also use it for dial settings, antenna positions, HTs, conduit, plumbing, parts bins and practically anything around the house. The vinyl tape will last for years, yet won't leave a nasty residue when you decide to peel it off later. It includes a permanent marker too.

| | | |
|---|---|---|
| TES-SLW | Write-On Wire Marker Tape Dispenser | $44.95 |

### Braided Wire Wraps

Use these wraps to add extra protection to your wires, tidy up a crowded chassis, improve cable management or to add a slick custom look to your homebrew projects. They're made from a heat resistant, woven polymer fiber that's split lengthwise so you can easily slip in your wire bundle. The wraps come in different lengths and diameters.

| Part Number | Diameter | Length | Price |
|---|---|---|---|
| SUM-890340 | 1/4" | 20' | $16.97 |
| SUM-890341 | 1/2" | 10' | $16.97 |
| SUM-890342 | 3/4" | 6' | $13.97 |
| SUM-890343 | 2" | 4' | $26.97 |

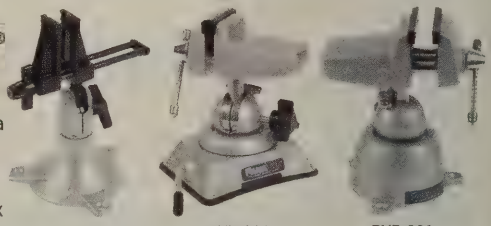
SUMMIT RACING EQUIPMENT

### Rubber Grommet Assortment Kits

A must-have if you're routing wires and cable through sheet metal; these kits are great for panels, firewalls, enclosures and equipment cases. They contain grommets in assorted sizes and include a handy storage case to keep things organized.

| | | |
|---|---|---|
| SUM-890091 | Grommet Kit, 82 Pieces, from .125" to .688" ID | $18.97 |
| SUM-890090 | Grommet Kit, 48 Pieces, from .5" to 1" ID | $15.97 |

PANAVISE®



PVP-201 PVP-381 PVP-301

### Vises and Accessories

The next best thing to an extra pair of hands, these vises and accessories allow you to put your project in virtually any position. That makes complex soldering jobs and wire routing much easier, especially in tight chassis. Many styles are available to suit your specific needs.

| | | |
|---|---|---|
| PVP-301 | Original PanaVise, Nylon Jaws, 2.25" Jaw Width, Standard Base | $54.99 |
| PVP-380 | 300-Series Vacuum Base, Accepts Many Head/Mount Combos | $44.99 |
| PVP-203 | PanaVise Jr. Head, .875" Width, 5/8" Shaft for 300-Series Base | $24.99 |
| PVP-381 | Original PanaVise, Nylon Jaws, 2.25" Jaw Width, Vacuum Base | $74.99 |
| PVP-201 | PanaVise Jr. Mini-Vise, 2.875" Jaw Width, Standard Base | $29.99 |

VEL-VTHH3 VEL-VTHH VEL-VTMG5

velleman projects

### Helping Hands, Lamps and Magnifiers

Are your friends growing tired of being enlisted as your second set of hands and eyes? Velleman's got some simple solutions to make precision electronics work easier.

| | | |
|---|---|---|
| VEL-VTHH | Helping Hands, with Magnifier | $8.75 |
| VEL-VTHH4 | Helping Hands with 2-Power Magnification | $14.95 |
| VEL-VTHH3 | Helping Hands, with Magnifier and LED Light | $21.95 |
| VEL-VTLAMP2BNU | Magnifying Swing Arm Lamp, Black | $53.95 |
| VEL-VTLAMP2WNU | Magnifying Swing Arm Lamp, White | $59.95 |
| VEL-VTMG5 | Gooseneck Magnifier | $11.95 |

### Zip Ties

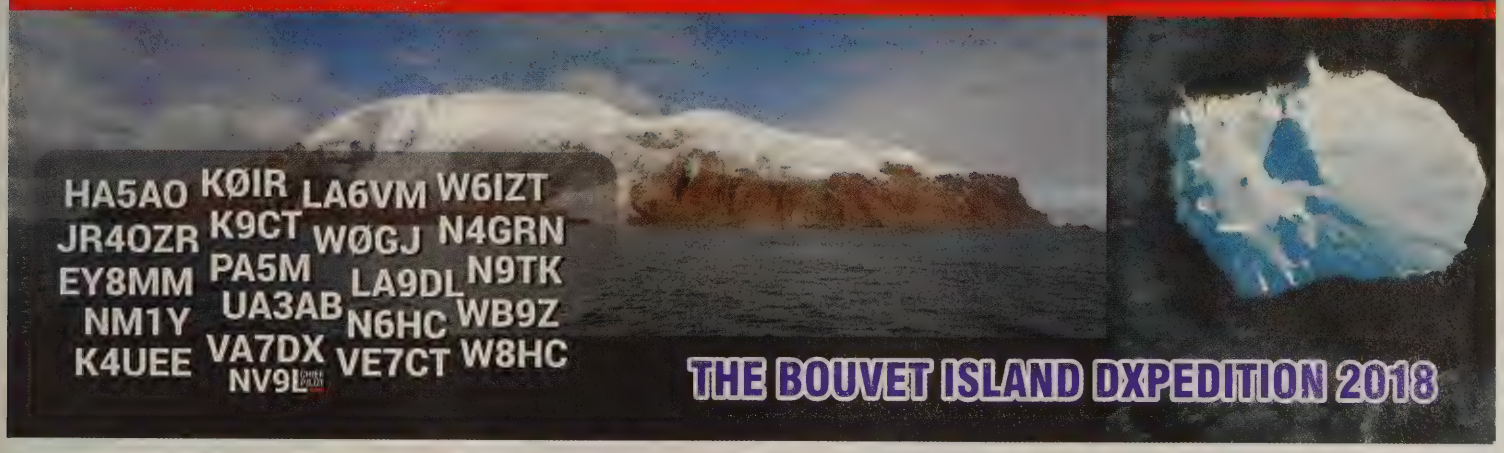
Quite possibly the most versatile tools in your shack, you can use these ties for cable management, field repairs, securing gear and more. They are made in UV-resistant black and come in several sizes.

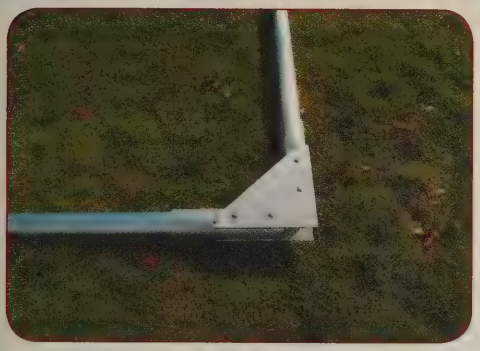
| | | |
|---|---|---|
| DXE-1860-100 | Zip Ties, 4", Pack of 100 | $4.95 |
| DXE-1861-100 | Zip Ties, 8", Pack of 100 | $5.95 |
| DXE-1862-100 | Zip Ties, 11", Pack of 100 | $8.95 |
| DXE-1863-100 | Zip Ties, 14", Pack of 100 | $9.95 |

DX ENGINEERING®

# Proudly Supports the 3YØZ DXpedition

The Bouvet Island DXpedition 2018 — 3YØZ — The Most Remote Island on Earth



DX Engineering designed and built this falling derrick style antenna mast for the 3Y0Z DXpedition.

The rugged design will allow for quick deployment and mechanical stability in the hostile environment of Bouvet Island.

On March 9, 2017, K9CT, K9NU, N9TK, W0GJ, and WB9Z met at K9CT's QTH to assemble and test the mast. Photo credit www.bouvetdx.org

## *3Y0Z Bouvet Island 2018—Engineering a DXpedition*

From the beginning DX Engineering has been solving the technical problems that confront Amateur Radio operators. Our first products were clamps and boom-to-element brackets that would securely mount beam antennas high atop the tower.

So when the 3Y0Z DXpedition team needed antenna support structures that could withstand the island's brutal wind and bone chilling air, they called us. Bouvet Island is one of the most dangerous DXpeditions ever undertaken, replete with technical, physical, and environmental hazards. And it is for that reason that experts say this may be one of the last opportunities ever to snag this rarer-than-rare DXCC entity.

Given the importance of Bouvet, we put our best engineers to the task, giving them this rigid set of criteria:

1. The fixture needs to be easy to set up wearing thick, cold weather gloves, yet endure high winds and rough terrain.
2. The base structure must handle the wind load of a full size three element 20M Yagi antenna.
3. It must break down for easy transport via helicopter so it can be carried by hand.

A tall order for sure, but our team (like ALL Amateur Operators!) loved the challenge. The solution is a beefed-up variation of the venerable falling derrick design. The derrick relies on 10 foot long 2-1/2 inch Schedule 80 aluminum pipe. Three sections are spliced together for the mast and two sections are spliced together for the base.

After meeting with the highly experienced leaders of 3Y0Z, we drew up a plan and built a prototype.

Why go to this much trouble to assist the Bouvet DXpedition team? Because we are committed to the Amateur Radio hobby. What we learn from building these single-use design prototypes helps us make better products for your home station. (Oh, and we'd never miss a chance to help someone "work them all!")

## *DX Engineering On Board*

With no margin for error, the 3Y0Z team has chosen to take along a range of mission-critical gear from DX Engineering. Items making the journey to Bouvet Island include our revolutionary 400MAX DX Series Low-Loss 50-ohm Coax Assemblies; NCC-2 Receive Antenna Phasing System; RF-PRO-1B® Active Magnetic Loop Antenna; TFS4 Series B Transmit Four Square System; Phased Array Quarter Wave Tuned Cable; 6UF 75-ohm Dual Shield Coaxial Cable; and everything from coax cable prep kits to saddle clamps. Also, Mastrant rope and guying accessories were selected to guy the towers and antennas. In a recent development, ACOM agreed to provide the DXpedition with a dozen of its 1500 Amplifiers. All of this gear is available at DX Engineering.

DXE-UT-KIT4

DX ENGINEERING

### Coaxial Cable Tool Kits

Carry everything you need to prep and install soldered connectors on your coaxial cable. The Basic Kit is tailored for RG-213 and RG-8 cable with PL-259 connectors. It includes a stripping tool, gripping tool, specialized PL-259 assembly tool, cable shears and a carrying case.

Upgrading to the Complete Kit gives you the tools to work with RG-8/X size cable and Type N connectors. It comes with specialized stripping, gripping and assembly tools. You'll also get a braid trimmer and replacement blades for the stripping tool.

If you've been using your tool case a lot and the foam is starting to disintegrate, DX Engineering now offers replacement foam.

| | | |
|---|---|---|
| DXE-UT-KIT3 | Basic Coax Tool Kit | $119.95 |
| DXE-UT-KIT4 | Complete Coax Tool Kit | $199.95 |
| DXE-UT-CASE-FOAM | Replacement Foam for the Basic/Complete Case | $13.95 |

DX ENGINEERING

DXE-8X-PREP-P

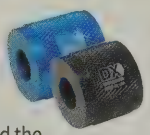
### Coaxial Cable Prep Tool Combos

These combos make working with coaxial cable much easier. They include one of our Coaxial Cable Grippers and a perfectly matched Coaxial Cable Stripper.

| | | |
|---|---|---|
| DXE-8X-PREP-P | Prep Tool Combo, for RG-8X and Similar-Size Cable | $64.90 |
| DXE-8U-PREP-P | Prep Tool Combo, for RG-8U and Similar-Size Cable | $64.90 |

DX ENGINEERING

### Connector Assembly Tools



These assembly tools allow simple threading of connector bodies onto the vinyl jacket of RG-8/U, RG-213/U and other similar size cables. The DXE-UT-80P assembly tool is for PL-259 connectors, and the DXE-UT-80N assembly is for two-piece Type N connectors. Assembly is simple. Strip the cable with the DXE-UT-8213 Cable Stripping Tool, then use the appropriate connector assembly tool and thread the connector body onto the stripped cable end. A visual guide at the end of the tools allows easy viewing of the cable center conductor for proper depth. You get a perfect and easy connector installation every time.

| | | |
|---|---|---|
| DXE-UT-80P | Connector Assembly Tool for PL-259 Connectors, Black | $22.95 |
| DXE-UT-80N | Connector Assembly Tool for 2-piece Type N Connectors, Blue | $22.95 |

DX ENGINEERING

### Coax Cable Strippers for 50 Ω Cable

These DX Engineering strippers prepare 50 Ω coax cable for installation of a solder-on PL-259 connector.

- Work on foam or solid dielectric cable
- Precision, two-step operation
- No nicks or scratches to conductor
- Premium, long-lasting cutter blades

| | | |
|---|---|---|
| DXE-UT-8213 | Coax Cable Stripper for RG-8, RG-213, 9913 and Similar Size Cable, Red | $49.95 |
| DXE-UT-808X | Coax Cable Stripper for RG-8X and Belden 9258 Cable, Green | $49.95 |
| DXE-UT-8213LR | Coax Cable Stripper for RG-213, RG-8 and Similar Size Cable, Purple | $65.95 |
| DXE-UT-RB-HD* | Pack of Two Heavy-Duty Replacement Blades for UT-8 Tools | $19.95 |

*Also fits Cablematic UT-8000

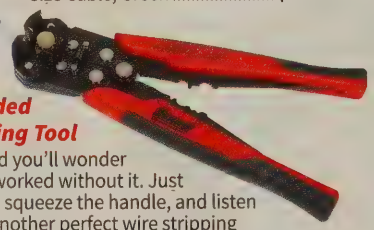
DX ENGINEERING

### Cable Grippers

These hand grippers are the perfect complement to DX Engineering's Coaxial Cable Prep Tools. They help you securely hold your cable while you're doing the proper prep. They're also effective for holding the cable as you're pulling it off a spool or out of a box for a run. These grippers have been redesigned to incorporate a hinge between the two halves. This makes it easier to store and manipulate the grippers.

| | | |
|---|---|---|
| DXE-CGH-8U | Cable Gripper for RG-8U Size Cable, Red | $14.95 |
| DXE-CGH-8X | Cable Gripper for RG-8X Size Cable, Green | $14.95 |

SUMMIT RACING EQUIPMENT

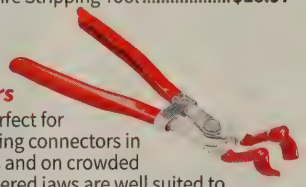


### Spring-Loaded Wire Stripping Tool

Use it once, and you'll wonder how you ever worked without it. Just insert the wire, squeeze the handle, and listen for the click—another perfect wire stripping job performed in about 2 seconds. And now Summit Racing's made it even better. The redesigned tool is more rugged, with heavy-duty teeth and increased adjustability. A wire length guide helps you make uniform strips, and the built-in wire cutter and crimper help you complete the job. It handles 24- to 10-gauge wire.

| | | |
|---|---|---|
| SUM-900031R | Spring-Loaded Wire Stripping Tool | $18.97 |

SUMMIT RACING EQUIPMENT

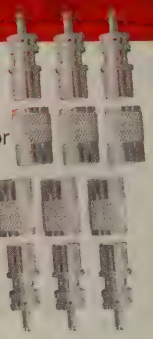


### Long Reach Pliers

This handy tool is perfect for installing and removing connectors in hard-to-reach places and on crowded panels. The vinyl covered jaws are well suited to both Type N and PL-259 connectors, while the no- slip grip gives you plenty of leverage. Use these pliers and you'll avoid cramped hands and fatigued fingers.

| | | |
|---|---|---|
| SUM-900071 | Long Reach Pliers | $8.97 |

DX ENGINEERING



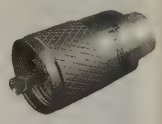
### Silver/PTFE Coax Connectors

This superior solder-on PL-259 connector uses silver plated outer and inner conductors and a PTFE insulator. The connector has very low loss and high electrical breakdown. It fits directly on RG-8, RG-213, 9913 and other cables with a nominal .405 inch OD jacket size.

Use a DXE-UG175 reducer with this connector to fit RG-58A/U and/or LMR195 coax, and a DXE-UG176S-6 reducer to fit RG-8X coax.

| | | |
|---|---|---|
| DXE-PL259-6 | PL-259 Connector, Pack of 6; | $16.95 |
| DXE-UG176S-6 | RG-8X Reducer for PL-259, Silver Plated, Pack of 6 | $6.55 |
| DXE-UG175S-6 | RG-58 Reducer for PL-259, Silver Plated, Pack of 6 | $5.70 |

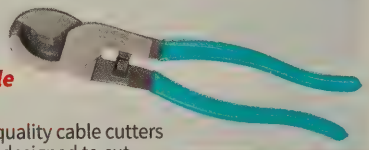
Amphenol® RF



### PL-259 Connector

This PL-259 from Amphenol RF is a solder-on connector sized precisely for 50 Ω RG-8, RG-9, RG-213 and RG-225 coaxial cable. It's tailored to 0-300 MHz and will handle 500 volts (peak).

| | | |
|---|---|---|
| AML-83-1SP-6 | PL-259 Connector, Pack of 6 | $27.95 |



### Coax Cable Cutters

CHANNELLOCK

These high-quality cable cutters have blades designed to cut coaxial cable cleanly. They will not crush the cable like diagonal side cutters—the cut end of the cable is cleanly cut, ready for stripping and connector assembly. The cutters can handle aluminum up to 4/0-gauge and soft copper cable up to 2/0-gauge.

| | | |
|---|---|---|
| CNL-911 | Coax Cable Cutters | $22.97 |

DX ENGINEERING

### Coaxial Cable Stripper

These strippers are simple to use and they deliver a professional, repeatable prep job every time. They feature an adjustable blade that is easy to replace. No special cartridge necessary.

| | | |
|---|---|---|
| DXE-15035 | Stripper for RG-8, RG-213 | $23.95 |
| DXE-15039-6 | Replacement Blades, Pack of 6 | $6.50 |

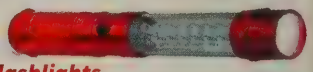
### Precision Shear Side Cutters

These DX Engineering Precision Shear Side Cutters are the perfect tool for trimming loose strands of copper braid, trimming individual strands of the center conductor.

- Low-profile, general purpose cutter
- Superior blade bypass shear cutting action
- Better cuts with half the effort
- Reduced mechanical shock delivered to the work
- Flush cuts soft wire up to 20 AWG (0.8mm)

| | | |
|---|---|---|
| DXE-170M | Precision Shear Side Cutters | $11.25 |

SMITTYBILT



### Glove Box LED Flashlights

Thanks to the benefits of LED efficiency, these flashlights put out plenty of light without gobbling up batteries. They're actually two lights in one: a 16 LED array floodlight and a pinpoint 8 LED spotlight. The flashlights have an aluminum chassis and a magnetic end with a handy extra hook for hanging. They use 3 AA batteries.

| | | |
|---|---|---|
| SMT-L-1407BK | LED Flashlight, Black | $15.99 |
| SMT-L-1407BU | LED Flashlight, Blue | $15.99 |
| SMT-L-1407RD | LED Flashlight, Red | $15.99 |
| SMT-L-1407SL | LED Flashlight, Silver | $15.99 |

DXE-UT-KIT-CRMP2

DX ENGINEERING

## Ultra-Grip 2 Crimp Connector Hand Tool Kit

This kit includes everything you need to make professional-quality crimps on coaxial and Powerpole® connectors. The ratcheting steel crimper is designed to fit ergonomically in your hand to reduce fatigue. The kit comes with the Ultra-Grip 2 Tool, 5 crimp dies, shears, braid trimmer, Allen wrench and case. You get crimp dies precisely sized for RG-8U, LMR-400, RG-8X and LMR-240 type cables, along with specialized dies for Powerpole 15A, 30A and 45A connectors, as well as insulated and un-insulated wire terminals.

The Ultra-Grip 2 Crimp Tool, interchangeable dies and specialized carrying case are also available separately. You can expand the functionality of your UT-CRIMP and UT-CRMP2 Crimp Tool with extra crimp dies. They're made to handle various common crimp connector types in several sizes.

| | | |
|---|---|---|
| DXE-UT-KIT-CRMP2 | Complete Kit, 5 Die Sets | **$154.95** |
| DXE-UT-CRMP2 | Crimp Tool for RG-8U/ LMR-400 Size Cable | **$49.68** |
| DXE-UT-CRMP2-8X | Crimp Tool for RG-8X/ LMR-240 Size Cable | **$49.68** |
| DXE-UT-CRMP2-PWR | Crimp Tool for Powerpole® 15, 30, 45A | **$49.68** |
| DXE-UT-DIE-INS | Crimp Die for Insulated 22-10 AWG Terminals | **$19.73** |
| DXE-UT-DIE-UNIS | Crimp Die for Uninsulated 22-8 AWG Terminals | **$19.73** |

DX ENGINEERING

## Coaxial Cable Prep Tools for Crimp Connectors

Easily and properly prepare your coaxial cable for a crimp connector to ensure optimal station performance. Available for a wide range of cable types. These tools prepare the cable to receive DX Engineering and Amphenol Connex crimp connectors.

Just place the end of your coax against the internal stop, close the cutter and twist. Open the cutter and the cable is cut to the correct measurements to attach the connector. Place the coax in the other side of the cutter, close it and withdraw the cable—your coax jacket is now slit for easy removal of the cut portions. Select from a complete kit, or buy each cutter separately.

| Part Number | Cable Type | Connector Type | Price |
|---|---|---|---|
| DXE-UT-240C-N1 | 8X (0.242" OD) | Type-N and BNC | **$39.95** |
| DXE-UT-240C-P1 | 8X (0.242" OD) | PL-259 | **$39.95** |
| DXE-UT-405C-N1 | 8U/400 (0.405" OD) | Type-N and BNC | **$39.95** |
| DXE-UT-405C-P1 | 8U/400 (0.405" OD) | PL-259 | **$39.95** |
| DXE-UT-KIT-CC1 | Complete Kit with Tools Above and Case | | **$249.95** |

## Next Generation Crimp/Solder UHF Male Connectors

DX ENGINEERING

Taking a "better mousetrap" approach, DX Engineering designed a revolutionary new Next Generation PL-259 connector. It combines the best qualities of solder and crimp technologies for unparalleled reliability and the lowest loss. The crimp shield provides a 360° electro-mechanical connection, while the hand-soldered center pin ensures superior RF continuity. The connector features a silver-plated shell, body and center pin. A double-knurled body surface makes the PL-259 easier to install, too. It's a must-have crimp-style PL-259 for any coaxial cable, especially coax cables that use foil shields.

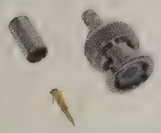
These are the same connectors found on all DX Engineering pre-made cable assemblies equipped with a PL-259. They're absolutely essential in creating the lowest-loss connection possible.

DXE-PL259CS8U-6

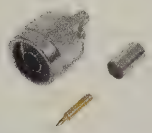
DXE-PL259CS8X-6

| Part Number | For Cable Type | Quantity | Price |
|---|---|---|---|
| DXE-PL259CS8U-6 | RG-8U, LMR-400 | 6 | **$24.95** |
| DXE-PL259CS8U-12 | RG-8U, LMR-400 | 12 | **$43.95** |
| DXE-PL259CS8U-24 | RG-8U, LMR-400 | 24 | **$79.95** |
| DXE-PL259CS8X-6 | RG-8X, LMR-240 | 6 | **$26.95** |
| DXE-PL259CS8X-12 | RG-8X, LMR-240 | 12 | **$47.95** |
| DXE-PL259CS8X-24 | RG-8X, LMR-240 | 24 | **$87.95** |

AMP-112116



AMP-172135



# Amphenol® Connex

## Solderless Crimp-On Connectors

DX Engineering carries Amphenol Connex connectors to ensure your gear is operating at its full potential. Depending on the type, these crimp connectors feature nickel or silver plated bodies, gold or silver plated center pins and PTFE, or phenolic insulators. You can also find the proper crimping/stripping tools at DXEngineering.com.

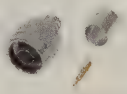
| Part Number | Connector | Fits Cable | Price |
|---|---|---|---|
| AMP-112116 | BNC Male | RG-58, LMR-195 | **$2.15** |
| AMP-172100 | Type N Male | RG-58, LMR-195 | **$5.05** |
| AMP-172102H243 | Type N Male | DXE-8U, 400MAX, LMR-400 | **$7.65** |
| AMP-172135 | Type N Male | RG-8X, LMR-240 | **$6.62** |

Amphenol® RF

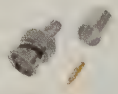
## Connectors and Adapters

Before you buy a new piece of gear, make sure you have the right adapters to install it correctly. Amphenol RF supplies must-have connector solutions for your shack, so you'll spend less time building cable and more time on the air.

AML-172102-2



AML-112533-4



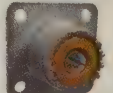
AML-000-2900

AML-000-4400

AML-83-877

AML-83-1J-2

AML-83-1R-2

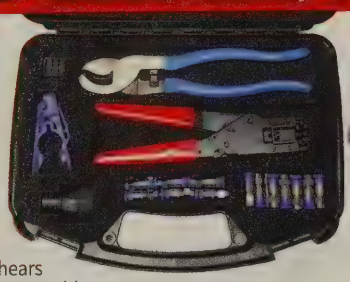


AML-83-798-2

AML-83-878-RFX

| Part Number | Connector End 1 | Connector End 2 | Design | Price |
|---|---|---|---|---|
| AML-112533-4† | BNC Male | RG-8X, LMR-240 | Straight | **$9.55** |
| AML-000-2900 | BNC Male | SO-239 | Straight | **$22.95** |
| AML-31-28 | BNC Female | PL-259 | Straight | **$22.95** |
| AML-000-4400 | Type N Male | SO-239 | Straight | **$18.95** |
| AML-83-877 | PL-259 | PL-259 | Barrel | **$39.95** |
| AML-172123-2* | Type N Female | Type N Female | Straight | **$22.95** |
| AML-172102-2* | Type N Male | Crimp | For RG-213, -8, -393 | **$14.95** |
| AML-83-1J-2* | SO-239 | SO-239 | Barrel | **$29.95** |
| AML-83-1R-2* | Solder Terminal | SO-239 | Chassis Mount | **$10.95** |
| AML-83-798-2* | Solder Terminal | SO-239 | Chassis Mount | **$17.25** |
| AML-83-878-RFX | Solder Terminal | SO-239 | Bulkhead | **$6.55** |
| AML-83-1T | PL-259 | SO-239 (x 2) | Tee | **$22.95** |
| AML-83-1AP-2* | PL-259 | SO-239 | Right Angle | **$38.95** |

*Sold in a package of two † Sold in a package of four



### F Connector 75 Ω Cable Prep Tool Kit

- Case
- Coaxial cable shears
- Stripping tool for F6 cable
- Snap-N-Seal® watertight F Connectors (25 total)
- SNS connector compression tool
- F Connector tightening tool

| | | |
|---|---|---|
| DXE-UT-KITF | Prep Kit for F6 & 6UF Cable; | $154.95 |
| DXE-F6-CASE | Case Only | $25.95 |

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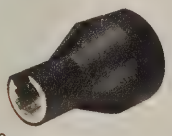

### F Connector Tightening Tool

This tool installs and removes F Connectors in high density and hard to reach locations. It helps ensure proper connections to reduce the possibility of loose connector related problems. It is the only tool that works with bent coax. Only finger force is required.

| | | |
|---|---|---|
| DXE-CIT-1 | F Connector Tightening Tool | $12.95 |

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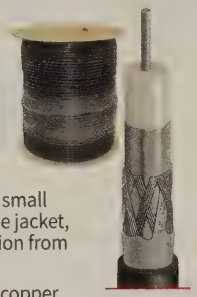


### 6UF 75 Ω Dual Shield Coax

We highly recommend using top quality 75 Ω flooded RG-6 coax for direct-bury applications. Flooded cables automatically seal small accidental cuts or lacerations of the jacket, plus it prevents shield contamination from moisture ingress.

Our 6UF cable features an 18 AWG copper core, making it extremely strong and durable. This low-loss cable features dual shields and an 83% velocity factor. It is RoHS compliant.

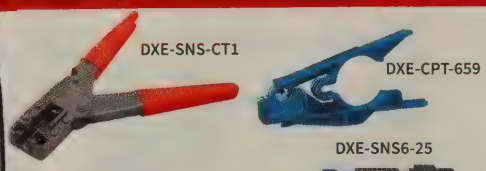
| | | |
|---|---|---|
| DXE-6UF-CTL | F-6 Style Direct-Bury Coax | per foot $0.19 |
| DXE-6UF-1000 | F-6 Style Direct-Bury Coax, 1,000' Spool | $149.95 |

### RG400 High Isolation Coaxial Cable Assemblies

DX ENGINEERING

Made to military-spec (MIL-C-17), this RG400 provides extremely high noise and signal isolation and will handle up to 8 kW. It boasts an efficient, stranded silver covered copper center conductor and double silver covered copper braided shields. The cable is wrapped in a tough, waterproof fluorinated ethylene propylene jacket. It terminates in silver plated Amphenol 831SP PL-259 connectors with UG-175 reducers. The cable has a 0.195" OD.

| | | |
|---|---|---|
| DXE-RG400R003 | RG400 High Isolation Coaxial Cable, 3' | $47.95 |
| DXE-RG400R006 | RG400 High Isolation Coaxial Cable, 6' | $59.95 |
| DXE-RG400R010 | RG400 High Isolation Coaxial Cable, 10' | $76.95 |



DX ENGINEERING

### Snap-N-Seal® Watertight Connectors

Designed for harsh environments, DX Engineering's exclusive Type F coax connectors offer high performance signal leakage protection. The Snap-N-Seal system prevents moisture from migrating into the connection, while the 360 degree radial compression provides superior RF integrity (-95 dB typical, 60% bonded foil cable). The quad-sealed connectors are made with high quality materials to ensure years of outdoor use. Installing them is, well, a snap when using the specialized DXE-SNS-CT1 tool.

| | | |
|---|---|---|
| DXE-SNS6-25 | Snap-N-Seal Connectors for 6UF Cable, 25 Pieces | $29.95 |
| DXE-SNS1P6QS-10 | Snap-N-Seal Connectors for RG6/6UQ Quad Shield Cable, 10 Pieces | $11.95 |
| DXE-SNS-CT1 | Compression Tool for Snap-N-Seal Connectors | $39.95 |
| DXE-CPT-659 | Coax Cable Stripper for RG-6 and RG-59 | $29.95 |

### RG-6/U 75 Ω Quad-Shield Coaxial Cable Assemblies

DX ENGINEERING

We add a pair of high-quality weather sealed compression male F connectors to our RG-6/U cable to create pre-made cable assemblies for your shack. The assemblies are precision manufactured and machine-crimped to ensure that these are the lowest loss and most durable cable assemblies on the market. Need a custom assembly made? Visit DXEngineering.com, use our free online Custom Cable Builder and we'll create it for you.

**RG-6/U Coaxial Cable Assembly**

| | | |
|---|---|---|
| DXE-RG6UQF003 | 3' | $19.95 |
| DXE-RG6UQF006 | 6' | $22.95 |
| DXE-RG6UQF012 | 12' | $25.95 |
| DXE-RG6UQF025 | 25' | $32.95 |
| DXE-RG6UQF050 | 50' | $39.95 |
| DXE-RG6UQF100 | 100' | $53.95 |
| DXE-RG6UQF150 | 150' | $61.95 |
| DXE-RG6UQF200 | 200' | $69.95 |

DX ENGINEERING

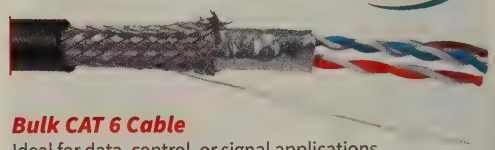
### RG-8X BNC Jumper Cable Assemblies

These male BNC jumper cables feature secure, crimped connectors and tube-shrink seals, which make them impervious to the elements. They are Hi-Pot tested. In addition to 50 Ω assemblies, there are 75 Ω assemblies available as well.

| | | |
|---|---|---|
| DXE-8XDB002 | RG-8X BNC Jumper Cable, 2' | $17.45 |
| DXE-8XDB003 | RG-8X BNC Jumper Cable, 3' | $18.45 |
| DXE-8XDB006 | RG-8X BNC Jumper Cable, 6' | $20.45 |
| DXE-8XDB012 | RG-8X BNC Jumper Cable, 12'; | $24.45 |
| DXE-8XDB025 | RG-8X BNC Jumper Cable, 25'; | $29.45 |
| DXE-8XDB050 | RG-8X BNC Jumper Cable, 50'; | $37.45 |

TIMES MICROWAVE SYSTEMS
An Amphenol Company

New!



### Bulk CAT 6 Cable

Ideal for data, control, or signal applications, Times Microwave's CAT 6 features excellent electrical characteristics, plus a tinned copped shield for grounding and RFI prevention. The TCAT-6 is designed for indoor/outdoor use, while the TCAT-6-DB is well suited for outdoor, direct-bury installations. Connectors are sold separately.

Times Microwave also makes a handy grounding kit to properly install this cable. It features a pre-formed copper strap that terminates in a ground lug, and comes with hardware and insulating tape.

| | | |
|---|---|---|
| TMV-TCAT-6 | CAT 6 Cable, Indoor/Outdoor | per foot $0.96 |
| TMV-TCAT-6-DB | CAT 6 Cable, Outdoor, Direct-Bury | per foot $1.08 |
| TMV-TCAT-RJ-4525 | RJ-45 Connectors, Pack of 25 | $58.95 |
| TMV-GK-TCAT | CAT Cable Grounding Kit | $15.95 |

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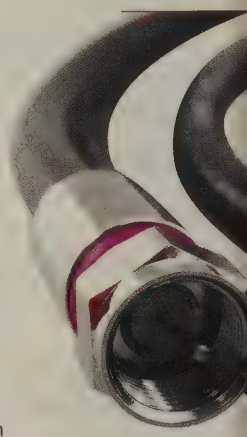


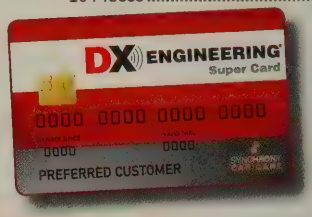
### RG-6/U 75 Ω Quad-Shield Coaxial Cable

We consider this RG-6/U the "Cadillac" of coaxial cable. With a velocity factor of 83%, it's perfect for Ham Radio, including your Beverage, magnetic loop, and active/passive receive antenna system. The cable also works quite well for broadcast TV and FM radio, CATV/CCTV and audio/video distribution applications.

Our RG-6/U coaxial cable has a gas-injected polyethylene foam dielectric, which makes the cable flexible and resistant to moisture. The 18 AWG center conductor is copper-clad steel for improved durability. As the name implies, it has two foil shields, plus two additional aluminum braids, creating four levels of RF shielding. The jacket is UV protected for outside runs.

The cable is available in 1,000' spools, by the foot for custom lengths and in premade assemblies. Visit DXEngineering.com for more specs, including attenuation figures.

| | | |
|---|---|---|
| DXE-6UQ-1000 | RG-6/U 75 Ω Quad-Shield Cable, 1,000' Spool | $185.00 |
| DXE-6UQ-CTL | RG-6/U 75 Ω Quad-Shield Cable, Per foot | $0.24 |
| DXE-SNS1P6QS-10 | Snap-N-Seal Connectors for RG6/6UQ Quad Shield Cable, 10 Pieces | $11.95 |




### DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card.

Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

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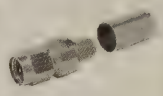
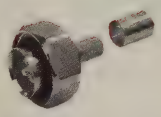
TMV-EZ-240-NF-X

TMV-EZ-240-NMH-X


TMV-EZ-240-SM-X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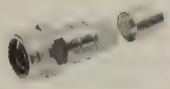
TMV-EZ-400-NF-X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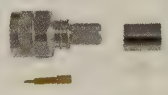
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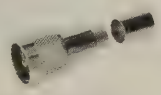
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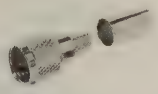
TMV-EZ-600-716F

TMV-EZ-600-NMC2D

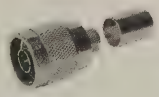
TMV-EZ-600-UM

TMV-TC-240-BMRAD

TMV-TC-240-BM-X


TMV-TC-240-MUHF

TMV-EZ-400-NMH-X


TMV-SC-400-NM

TMV-TC-240-NMC

## Coaxial Connectors

Though they're designed to work flawlessly with Times Microwave's own designs, these connectors also work well on various other types of coaxial cable. They are offered in three different body designs: a familiar knurled type, a hex head for an open-end wrench and a hybrid knurled/nut mix.

These are just a small sampling of the connectors available at DX Engineering. Find the entire selection at DXEngineering.com.

| Part Number | Connector | Gender | Body | Fits Cable | Price |
|---|---|---|---|---|---|
| **Crimp-On Center Pin Connector, Crimp Shield** | | | | | |
| TMV-EZ-240-NF-X | Type N | Female | Knurled/Nut | LMR-240 | $9.95 |
| TMV-EZ-240-NMH-X | Type N | Male | Knurled/Nut | LMR-240 | $10.95 |
| TMV-EZ-240-SM-X | SMA | Male | Nut | LMR-240 | $8.40 |
| TMV-EZ-400-716MX | 7-16 DIN | Male | Nut | LMR-400 | $17.95 |
| TMV-EZ-400-NF-X | Type N | Female | Knurled | LMR-400 | $9.95 |
| TMV-EZ-400-NMH-X | Type N | Male | Knurled/Nut | LMR-400 | $11.95 |
| TMV-EZ-400-NMK-D | Type N | Male | Knurled/Nut | LMR-400 | $13.95 |
| TMV-EZ-400-TM-X | TNC | Male | Knurled/Nut | LMR-400 | $10.95 |
| TMV-EZ-400-TMRAX | TNC | Male | Right Angle | LMR-400 | $17.95 |
| TMV-EZ-400-UM | PL-259 | Male | Knurled | LMR-400 | $16.95 |
| TMV-EZ-600-716F | 7-16 DIN | Female | Knurled | LMR-600 | $26.95 |
| TMV-EZ-600-NMC2D | Type N | Male | Knurled/Nut | LMR-600 | $19.95 |
| TMV-EZ-600-NMH-X | Type N | Male | Knurled/Nut | LMR-600 | $17.50 |
| TMV-EZ-600-UM | PL-259 | Male | Knurled | LMR-600 | $39.95 |
| **Solder-On Center Pin Connector, Crimp Shield** | | | | | |
| TMV-TC-195-NMH-X | Type N | Male | Knurled/Nut | LMR-195 | $11.50 |
| TMV-TC-240-BMRAD | BNC | Male | Right-Angle | LMR-240 | $14.95 |
| TMV-TC-240-BM-X | BNC | Male | Knurled | LMR-240 | $11.95 |
| TMV-TC-240-MUHF | PL-259 | Male | Mini-UHF | LMR-240 | $3.75 |
| TMV-TC-240-NMC | Type N | Male | Knurled | LMR-240 | $14.95 |
| TMV-TC-400-716MC | Type N | Male | Knurled | LMR-240 | $43.95 |
| TMV-TC-240-NMH-X | Type N | Male | Knurled/Nut | LMR-240 | $11.95 |
| TMV-TC-400-MUHF | PL-259 | Male | Mini-UHF | LMR-400 | $4.25 |
| TMV-TC-400-NF-X | Type N | Female | Knurled | LMR-400 | $14.95 |
| TMV-TC-400-NMH-X | Type N | Male | Knurled/Nut | LMR-400 | $11.95 |
| TMV-SC-400-NM | Type N | Male | Knurled | LMR-400 | $6.95 |
| TMV-TC-400-NMC | Type N | Male | Knurled/Nut | LMR-400 | $10.95 |

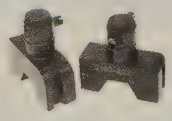
TIMES MICROWAVE SYSTEMS
An Amphenol Company

## Weather Seal Boots

Made precisely for LMR-series coaxial cable and EZ crimp connectors, these boots are a simple way to keep moisture out of your connectors. They also provide a significant amount of strain relief for the cable. Times Microwave's Weather Seal Boots require no heat and can be hand assembled in the field. They are ISO 9001 certified and offer weather protection to IP-67 standards. Sold in packs of ten.

| | | |
|---|---|---|
| TMV-WSB-240 | Weather Seal Boots, for LMR-240 and Similar Size Cable.... | $19.95 |
| TMV-WSB-400 | Weather Seal Boots, for LMR-400 and Similar Size Cable.... | $22.95 |
| TMV-WSB-600 | Weather Seal Boots, for LMR-600 and Similar Size Cable.... | $22.95 |

TIMES MICROWAVE SYSTEMS
An Amphenol Company


TMV-Y1720

TMV-Y1719

TMV-CT-400-300

TMV-CT-U

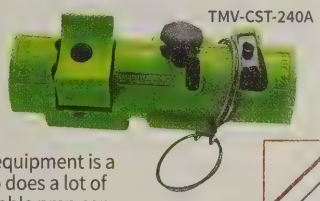
TMV-CT-240200195

## Coaxial Cable Crimping Tools

The final step of a connector installation is the proper electro-mechanical crimp contact. These tools are cable-size specific and optional die sets are available separately to expand the tools' versatility.

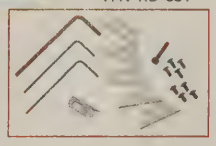
| | | |
|---|---|---|
| TMV-CT-240200195 | Crimp Tool with Dies for LMR-100/195/200/240 Cable..... | $159.95 |
| TMV-CT-400-300 | Crimp Tool with Dies for LMR-300/400 Cable..... | $159.95 |
| TMV-CT-U | Crimp Tool, Dies Sold Separately..... | $374.95 |
| TMV-CT-600 | Crimp Tool with Fixed Die for LMR-600 Cable..... | $159.95 |
| TMV-Y1719 | Crimp Dies for 3/8" LMR-400 Cable..... | $199.95 |
| TMV-Y1720 | Crimp Dies for TC/EZ-600 Style Connectors..... | $199.95 |

TIMES MICROWAVE SYSTEMS
An Amphenol Company


TMV-CST-240A

## Coaxial Cable Prep Tools

Times Microwave offers prep tools tailored specifically to its cable. This professional-caliber equipment is a must for any Ham Operator who does a lot of LMR cable assembly. Improper cable prep can have a dramatic affect on station performance, so ensure yours is correct. The CST-240A requires a separate deburring tool, while the 400/600 have built-in deburring capability.


TMV-RB-CST

DX Engineering has an enormous array of cable prep tools. Find them all at DXEngineering.com.

| | | |
|---|---|---|
| TMV-CST-240A | Coaxial Cable Prep Tool for LMR-240 Cable..... | $109.95 |
| TMV-CST-400 | Coaxial Cable Prep Tool for LMR-400 Cable..... | $109.95 |
| TMV-CST-600 | Coaxial Cable Prep Tool for LMR-600 Cable..... | $109.95 |
| TMV-RB-CST | Replacement Blades for CST Series Prep Tools..... | $49.95 |

## Cable Hoisting Grips

We've all done it—tied rope directly to the coax to pull it up to an installation. Problem is, that method can crush, deform or break the cable. These grips will safely lift your cable up a tower, to your roof or through a ceiling.

| | | |
|---|---|---|
| TMV-HG-400T | Cable Hoisting Grip, for LMR-400/0.4" OD Jacket Cable.... | $18.95 |
| TMV-HG-600T | Cable Hoisting Grip, for LMR-600/0.6" OD Jacket Cable.... | $21.95 |

## Cable Cutting Tool

TIMES MICROWAVE SYSTEMS
An Amphenol Company

Clean, square cuts on your cable are essential for a clean connector installation. This cutter will work with virtually any cable with a 3/8" to 1/2" OD and delivers that critical first step of cable prep.

| | | |
|---|---|---|
| TMV-CCT-02 | Cable Cutting Tool..... | $47.95 |

DX ENGINEERING

### Coaxial Connector Adapters

DX Engineering has a selection of assorted adapters for connecting cables with different type connectors.

Not all adapters are created equal. An improper connection could impair your station's performance. DX Engineering has designed and built no-compromise adapters to ensure your station isn't hampered with signal loss. Find more online at DXEngineering.com.

| Part Number | Adapter Type | Quantity | Price |
|---|---|---|---|
| DXE-532-2 | UHF Right Angle | 2 | $15.95 |
| DXE-533-2 | UHF Tee, 1 PL-259, 2 SO-239 | 2 | $18.25 |
| DXE-534 | UHF Tee, Triple SO-239 | 1 | $9.15 |
| DXE-536-4 | UHF Female Barrel | 4 | $12.95 |
| DXE-538-2 | UHF Double Male | 2 | $10.95 |
| DXE-1011-1 | N Tee, All Female | 1 | $15.95 |
| DXE-1012-1-2 | N Right Angle | 2 | $26.90 |
| DXE-1013-1-2 | N Double Female Barrel | 2 | $16.90 |
| DXE-1035-1-2 | N Male to UHF Female | 2 | $14.95 |
| DXE-1136-2 | BNC Male to UHF Female | 2 | $11.95 |
| DXE-06-0100-2 | F Female to UHF Male | 2 | $6.25 |
| DXE-06-0102-2 | N Female to UHF Male | 2 | $12.95 |
| DXE-1037-1-2 | N Male to BNC Female | 2 | $15.90 |
| DXE-1023-2 | N Double Female Bulkhead | 2 | $17.90 |
| DXE-1134-2 | BNC Double Female Barrel | 2 | $7.95 |
| DXE-1140-2 | BNC Female to RCA Male | 2 | $10.95 |
| DXE-1144-2 | BNC Female to F Male | 2 | $11.95 |
| DXE-06-0101-2 | BNC Female to UHF Male | 2 | $11.95 |
| DXE-1155-2 | BNC Male to F Female | 2 | $7.75 |
| DXE-1477-6 | F Double Female Bulkhead | 6 | $5.70 |
| DXE-1038-1-2 | N Female to BNC Male | 2 | $19.95 |

DIAMOND ANTENNA

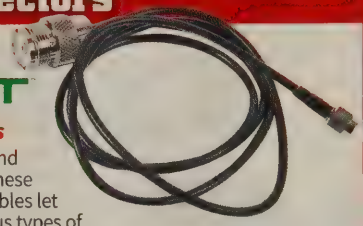
### Antenna Adapter Cable

Make quick, in-shack hookups easier. This 4 foot cable has a male SMA connector on one end and a SO-239 connector on the other. This cable is perfect for hooking up a scanner or your HT.

DMN-C104SMA Adapter Cable.....$16.95

COMET

### Adapter Cables



Get your gear up and running quickly. These RG-188 adapter cables let you connect various types of equipment and antennas without significant insertion loss. Find more adapters at DXEngineering.com.

| Part Number | Connector 1 | Connector 2 | Length | Price |
|---|---|---|---|---|
| CMA-HB-05 | SMA Male | BNC Female | 18" | $14.95 |
| CMA-HM-05 | BNC Male | SO-239 | 18" | $14.95 |
| CMA-HM-05JSJ | SMA Female | SO-239 | 18" | $15.95 |
| CMA-HS-05 | SMA Male | SO-239 | 18" | $14.95 |
| CMA-HS-10 | SMA Male | SO-239 | 39" | $17.95 |

Amphenol® RF

### Chassis Mount Coaxial Connector Kits

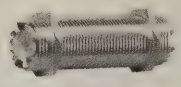
Make sure your connections are sturdy and reliable. Amphenol RF makes kits that combine the connector, plus the corresponding washers, nuts and bolts you need to complete a proper installation.

AML-83-798-2-KIT SO-239 Chassis Mount Kit, PTFE Dielectric, Pack of 2.....$23.15

AML-83-1R-2-KIT SO-239 Chassis Mount Kit, PBT Dielectric, Pack of 2.....$16.85

DX ENGINEERING

### Female Bulkhead Connectors



DXE-363-SST

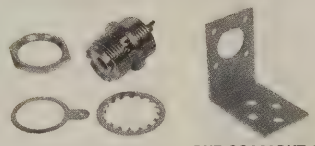
DXE-363-SST-NI

These high-quality bulkhead connectors use silver plated outer and inner conductors and a PTFE insulator. The connectors have very low-loss and high electrical breakdown. They come with two nuts to secure the connector to our Radial Plate or other flat surface. The connectors ensure the radial ground system, the antenna ground and the feedline shield are common. They can also be used for joining two pieces of coax with male PL-259s together.

DXE-363-SST Bulkhead Connector with SO-239 Socket.....$7.45

DXE-363-SST-NI Bulkhead-style, SO-239 to SO-239, with Nuts.....$5.45

DXE-T001 Installation Tool Kit for SO-239/ Bulkhead Connectors.....$19.95



DXE-SO239D-1 DXE-SO239BKT-1

### Connectors and Mounting Solutions

If you're building your own gear or do repair work, then you've probably had to install a lot of SO-239 connectors. DX Engineering carries several Amphenol and non-Amphenol brand SO-239 chassis mount options. The connectors come with the correct bolts, flat washers, star washers and Nylok locking nuts. These are a perfect fit for the DX Engineering Radial Plate.

The DX Engineering SO-239 Mounting Bracket lets you install an SO-239 practically anywhere. It's a great match for the DXE-SO239D-1 connector. The connector also works well in any hole-mount/chassis-mount location.

The DX Engineering Installation Tool Kit is an excellent way to speed up jobs and reduce hand fatigue.

DXE-112-KIT SO-239 with Silver Plating and PTFE Insulation.....$9.95

DXE-VC-0612 Black Vinyl Cap for SO-239, Pack of 20.....$5.75

DXE-SO239BKT-1 SO-239 Mounting Bracket.....$5.95

DXE-SO239D-1 SO-239 Chassis Mt. Connector; $5.95

DX ENGINEERING

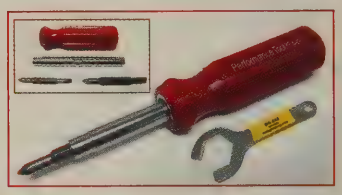
### Silver Plated Female SecureMount™ Bulkhead Connector Kit

SECUREMOUNT

From broken continuity to an impedance mismatch, a faulty bulkhead connector can introduce several problems into your station. To solve these issues, DX Engineering has designed a 50 Ω bulkhead SO-239 connector that is leaps-and-bounds better than ordinary varieties. For starters, it's silver plated to promote excellent RF continuity. Plus, this connector has a solid PTFE dielectric at its midpoint, which helps maintain consistent impedance and connectivity. It handles frequencies from DC to 500 MHz.

The connector is an excellent complement to DX Engineering's patented Radial Plate, and many other bulkhead-mount applications. Sold as a kit, the connector includes a set of four stainless steel bolts, nylon locking nuts, star washers and flat washers.

DXE-UHF-FDFB-KIT SecureMount Bulkhead SO-239 Connector Kit.....$15.40



### SO-239 Connector Installation Tool Kit

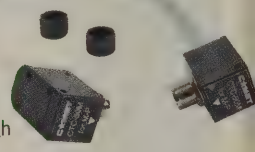
This versatile tool kit will help you install chassis or bulkhead mount SO-239 coax connectors. It includes a special stainless steel wrench. One end has a 3/4 inch semi-box wrench with a pass-through for coaxial cable—perfect for tightening the large nut used to mount bulkhead connectors. The other end is a 3/16 inch box wrench for tightening mounting nuts with SO-239 hardware. Also included is a multi-purpose 6-in-1 screwdriver/nutdriver tool with the following bits:

- 1/4 inch nutdriver
- 5/16 inch nutdriver
- 1/4 inch flathead
- #1 Phillips
- 3/16 inch flathead
- #2 Phillips

DXE-T001 SO-239 Connector Installation Tool Kit.....$19.95

COMET

### Window Feed-Thru Jumper



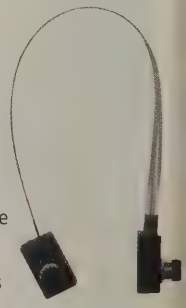
This 16 inch long feed-through lets you slip a flexible cable underneath your window sash. It handles 100 W (PEP), has an SWR under 1.3:1 (below 500 MHz) and uses two SO-239 connectors.

With a nominal loss of .5 dB up to 500 MHz, it's a solution that will please everyone.

CMA-CTC-50M Feed-Thru Jumper.....$54.95

DIAMOND ANTENNA

### Through Window/ Door Cable Set



Pass this set through the narrow openings of a window, door or even a vent. This 20 inch cable has an SO-239 connector at each end to make installation easy. It can handle up to 150 watts with a VSWR less than 1.2:1 at up to 500 MHz and an insertion loss lower than 1.7 dB.

DMN-MGC50 Through Window/Door Cable Set.....$53.95

# The DX Engineering Exclusive
# CUSTOM CABLE BUILDER
## *NEW! Now Available: LMR-240, LMR-400, LMR-600*

You decide which cable you want, how long you want it and which connectors you want installed. Our highly trained technical staff will build your cable assembly, and it will endure rigorous hi-pot testing before it leaves our facility.

**Mix-and-matching connectors is OK too.** For instance, you can put a PL-259 on one cable end and a BNC male on the other. You can also use the Custom Cable Builder to create copper braid assemblies for your specialized grounding applications.

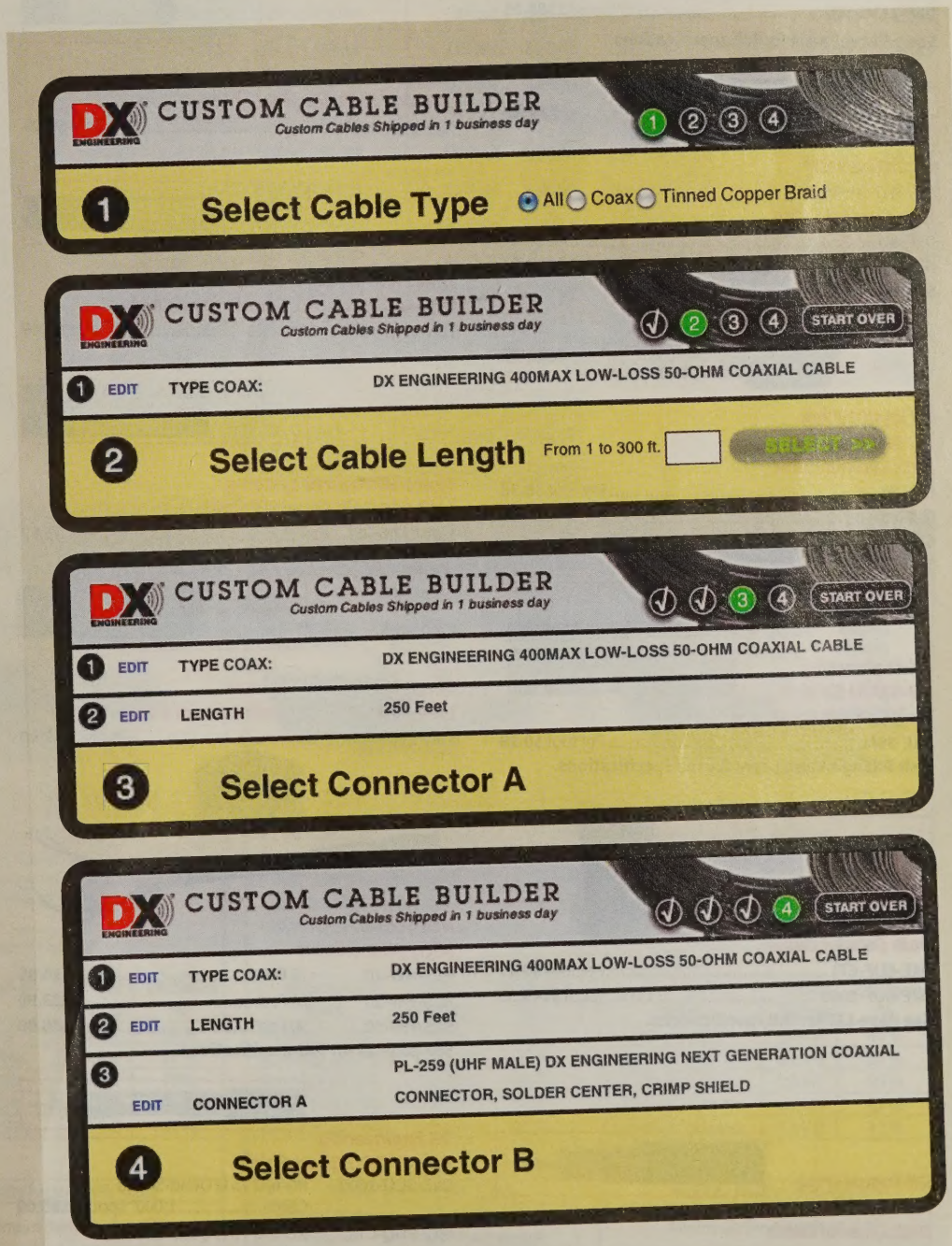
## How It Works:

1) Select the cable you want to use.

2) Enter the desired length of your new assembly.

3) Choose the connectors you want on each end.

4) Click "Add to Cart" and complete your order.

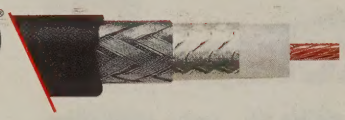



*We'll build your Custom Cable and ship it to you quickly.*

*It's easy, straightforward and intuitive.*

DX® ENGINEERING

**Visit DXEngineering.com to start building New Custom Cables**

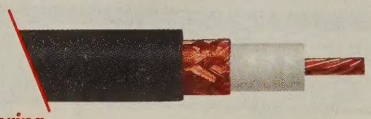


***DX Engineering Low-Loss 50-ohm Bulk Coaxial Cable***

DXE-400MAX ..... Per foot **$0.95**
DXE-400MAX-500 ..... 500' Spool **$399.95**
**See adjacent page for full specifications.**

***DX Engineering RG-213/U 50-ohm Bulk Coaxial Cable***

DXE-213U ..... Per foot **$0.89**
DXE-213U-500 ..... 500' Spool **$389.95**
**See adjacent page for full specifications.**

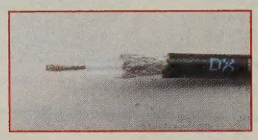


***DX Engineering RG-8/U 50-ohm Bulk Coaxial Cable***

DXE-8U ..... Per foot **$0.84**
DXE-8U-500 ..... 500' Spool **$369.95**
**See adjacent page for full specifications.**

***DX Engineering RG-8X 50-ohm Bulk Coaxial Cable***

DXE-8X ..... Per foot **$0.38**
DXE-8X-1000 ..... 1,000' Spool **$299.99**
**See adjacent page for full specifications.**

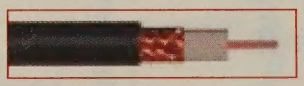


***DX Engineering RG-58A/U 52-ohm Bulk Coaxial Cable***

DXE-58AU ..... Per foot **$0.29**
**Visit DXEngineering.com for full specifications.**

***DX Engineering F6 75-ohm Bulk Coaxial Cable***

DXE-6UF-CTL ..... Per foot **$0.19**
DXE-6UF-1000 ..... 1,000' Spool **$149.95**
**See page 117 for full specifications.**



***DX Engineering RG-11/U 75-ohm Bulk Coaxial Cable***

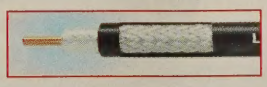
DXE-11U ..... Per foot **$0.69**
**Visit DXEngineering.com for full specifications.**

***Times Microwave Systems LMR-195 Bulk Coaxial Cable***

TMV-LMR-195 ..... Per foot **$0.58**

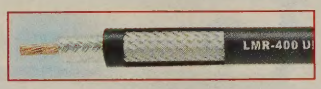
***Times Microwave Systems LMR-240 Bulk Coaxial Cable***

TMV-LMR-240 ..... Per foot **$0.69**



***Times Microwave Systems LMR-400 Bulk Coaxial Cable***

TMV-LMR-400 ..... Per foot **$0.99**

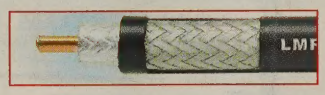



***Times Microwave Systems LMR-400 Ultra Flex Bulk Coaxial Cable***

TMV-LMR-400ULTRA ..... Per foot **$1.49**

***Times Microwave Systems LMR-600 Bulk Coaxial Cable***

TMV-LMR-600 ..... Per foot **$1.69**




***Times Microwave Systems LMR-600 Ultra Flex Bulk Coaxial Cable***

TMV-LMR-600ULTRA ..... Per foot **$3.00**

***Heil Sound Microphone Cable***

| | | |
|---|---|---|
| HLS-HW-10 | 10 Feet | **$14.95** |
| HLS-HW-20 | 20 Feet | **$23.00** |
| HLS-HW-50 | 50 Feet | **$56.00** |

**See page 29 for full specifications.**

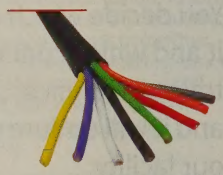
***DX Engineering RG-6/U 75 Ω Quad-Shield***

| | | |
|---|---|---|
| DXE-6UQ-1000 | RG-6/U 75 Ω Quad-Shield Cable ..... 1,000' Spool | **$185.00** |
| DXE-6UQ-CTL | RG-6/U 75 Ω Quad-Shield Cable ..... Per foot | **$0.24** |

**See page 118 for full specifications.**

***DX Engineering Heavy Duty Rotator Control Cable***

DXE-CW1812OR ..... Per foot **$0.95**



***DX Engineering Heavy-Duty Control Cable***

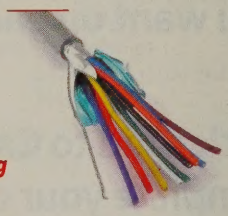
DXE-CW8-HD ..... Per foot **$0.89**
DXE-CW8-HD-1000 ..... 1,000' Spool **$850.00**

***DX Engineering Control Cable***

DXE-CW8 ..... Per foot **$0.49**

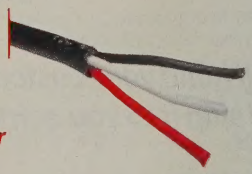
***DX Engineering Shielded CAT5e Control Cable***

DXE-CW9 ..... Per foot **$0.32**
DXE-CW9-1K ..... 1,000' Spool **$229.00**



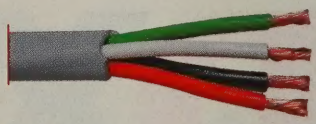
***DX Engineering Shielded Control Cable***

DXE-CW9S ..... Per foot **$0.38**



***COMTEK 3 Count Conductor Control Cable***

COM-CW3 ..... Per foot **$0.25**
COM-CW3-1000 ..... 1,000' Spool **$197.95**



***COMTEK 4 Count Conductor Control Cable***

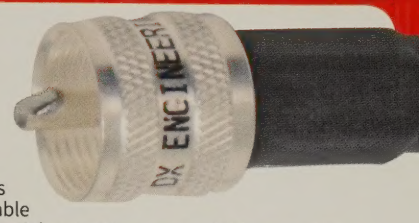
COM-CW4 ..... Per foot **$0.45**
COM-CW4-500 ..... 500' Spool **$165.95**

## *High Performance Coaxial Cable and Cable Assemblies*

DX ENGINEERING

DX Engineering Coaxial Cables are made to our strict specifications to ensure that your bulk cable or cable assembly purchase will perform beyond expectations, offering the greatest and longest lasting value for your radio installation. DX Engineering 400MAX, 8U, 8X and 11U coaxial cables feature ultra-low loss gas-injected foam cable dielectrics while 213U and 58AU cables feature rugged and flexible solid dielectrics to handle the elevated SWR of some high-performance HF antenna installations. All DX Engineering cables have excellent weather resistant jackets and our 50-ohm coaxial cables feature stranded copper center conductors for the best connections and long-term flexibility.

Now installed on all of DX Engineering Coaxial Cable Assemblies with PL-259s, our revolutionary Next Generation connectors combine the best qualities of solder and crimp technologies for unparalleled reliability and the lowest loss. These 50-ohm coaxial cable assemblies feature hand-soldered center pins, machine crimped shields and are finished with weather-sealed shrink tube so they are highly resistant to moisture and wear.




We offer an extensive line of coaxial cables sold in bulk, by the foot and by the roll. Cable preparation tools and different types of coaxial connectors are available here. See our new Custom Cable Builder system for ordering custom cable assemblies with thousands of cable types, lengths and connector combinations that will satisfy nearly every RF application. Visit DXEngineering.com to see our comprehensive bulk cable and coaxial cable assembly offerings.

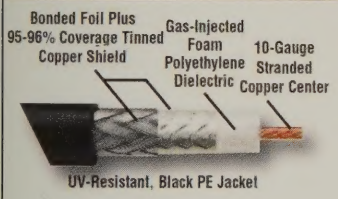
| DXE-400MAX Low-Loss | | |
|---|---|---|
| DXE-400MAXDX003 | 3 Feet | **$21.45** |
| DXE-400MAXDX006 | 6 Feet | **$24.45** |
| DXE-400MAXDX009 | 9 Feet | **$26.45** |
| DXE-400MAXDX012 | 12 Feet | **$27.45** |
| DXE-400MAXDX018 | 18 Feet | **$31.45** |
| DXE-400MAXDX025 | 25 Feet | **$44.45** |
| DXE-400MAXDX050 | 50 Feet | **$69.45** |
| DXE-400MAXDX075 | 75 Feet | **$97.45** |
| DXE-400MAXDX100 | 100 Feet | **$119.45** |
| DXE-400MAXDX125 | 125 Feet | **$149.45** |
| DXE-400MAXDX150 | 150 Feet | **$179.45** |
| DXE-400MAXDX175 | 175 Feet | **$204.45** |
| DXE-400MAXDX200 | 200 Feet | **$229.45** |
| DXE-400MAX | Per Foot | **$0.95** |
| DXE-400MAX-500 | 500' Spool | **$399.95** |
| DXE-400MAX-1000 | 1,000' Spool | **$795.95** |

| DXE-213U MIL-Spec | | |
|---|---|---|
| DXE-213UDX003 | 3 Feet | **$20.45** |
| DXE-213UDX006 | 6 Feet | **$22.45** |
| DXE-213UDX012 | 12 Feet | **$26.45** |
| DXE-213UDX018 | 18 Feet | **$29.45** |
| DXE-213UDX025 | 25 Feet | **$43.45** |
| DXE-213UDX050 | 50 Feet | **$68.45** |
| DXE-213UDX075 | 75 Feet | **$96.45** |
| DXE-213UDX100 | 100 Feet | **$118.45** |
| DXE-213UDX125 | 125 Feet | **$148.45** |
| DXE-213UDX150 | 150 Feet | **$178.45** |
| DXE-213UDX175 | 175 Feet | **$203.45** |
| DXE-213UDX200 | 200 Feet | **$228.45** |
| DXE-213U | Per Foot | **$0.89** |
| DXE-213U-500 | 500' Spool | **$389.95** |
| DXE-213U-1000 | 1,000' Spool | **$774.95** |

| DXE-8U Low-Loss Foam Dielectric | | |
|---|---|---|
| DXE-8UDX002 | 2 Feet | **$19.95** |
| DXE-8UDX003 | 3 Feet | **$20.95** |
| DXE-8UDX006 | 6 Feet | **$23.95** |
| DXE-8UDX009 | 9 Feet | **$25.95** |
| DXE-8UDX012 | 12 Feet | **$26.95** |
| DXE-8UDX018 | 18 Feet | **$30.95** |
| DXE-8UDX025 | 25 Feet | **$43.95** |
| DXE-8UDX050 | 50 Feet | **$68.95** |
| DXE-8UDX075 | 75 Feet | **$96.95** |
| DXE-8UDX100 | 100 Feet | **$118.95** |
| DXE-8UDX125 | 125 Feet | **$148.95** |
| DXE-8UDX150 | 150 Feet | **$178.95** |
| DXE-8UDX175 | 175 Feet | **$203.95** |
| DXE-8UDX200 | 200 Feet | **$228.95** |
| DXE-8U | Per Foot | **$0.84** |
| DXE-8U-500 | 500' Spool | **$369.95** |
| DXE-8U-1000 | 1,000' Spool | **$764.95** |

| DXE-8X Low-Loss Foam Dielectric | | |
|---|---|---|
| DXE-8XDX1-5 | 1.5 Feet | **$16.45** |
| DXE-8XDX002 | 2 Feet | **$17.45** |
| DXE-8XDX003 | 3 Feet | **$18.45** |
| DXE-8XDX006 | 6 Feet | **$19.45** |
| DXE-8XDX012 | 12 Feet | **$24.45** |
| DXE-8XDX015 | 15 Feet | **$25.45** |
| DXE-8XDX018 | 18 Feet | **$26.45** |
| DXE-8XDX025 | 25 Feet | **$29.45** |
| DXE-8XDX050 | 50 Feet | **$37.45** |
| DXE-8XDX075 | 75 Feet | **$44.45** |
| DXE-8XDX100 | 100 Feet | **$54.45** |
| DXE-8XDX150 | 150 Feet | **$79.45** |
| DXE-8X | Per Foot | **$0.38** |
| DXE-8X-1000 | 1,000' Spool | **$299.99** |

### *DXE-400MAX Low-Loss Cable*




*Gas-Injected Foam Won't Absorb Water*

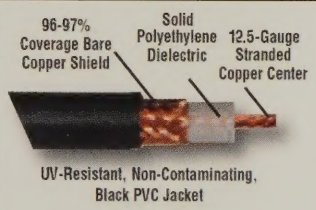
- Low-loss, gas-injected foam polyethylene dielectric bonded foil covered by a braided copper shield
- .405" low-density polyethylene jacket is UV resistant, ideal for outdoor use
- Direct-bury

| Attenuation/ 100 ft. | Power Rating | Efficiency % |
|---|---|---|
| 0.3 dB @ 5 MHz | 6.9 kW | 93 % |
| 0.5 dB @ 10 MHz | 4.8 kW | 90 % |
| 0.8 dB @ 30 MHz | 2.8 kW | 83 % |
| 1.1 dB @ 50 MHz | 2.1 kW | 79 % |
| 1.8 dB @ 150 MHz | 1.2 kW | 65 % |
| 3.3 dB @ 450 MHz | 0.7 kW | 47 % |

Velocity Factor: 84% (0.84)

Minimum Bend Radius: 6" Repeated Bends, 2.5" Fixed Install

### *DXE-213U MIL-Spec Cable*




*Solid Dielectric Won't Absorb Water*

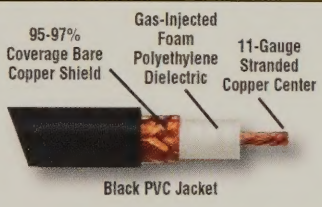
- Solid Polyethylene Dielectric
- .405" Type II-A jacket is non-contaminating and UV-resistant, suitable for outdoor use
- Direct-bury
- Braided copper shield

| Attenuation/ 100 ft. | Power Rating | Efficiency % |
|---|---|---|
| 0.4 dB @ 5 MHz | 4.9 kW | 90 % |
| 0.6 dB @ 10 MHz | 3.4 kW | 87 % |
| 1.0 dB @ 30 MHz | 2.0 kW | 79 % |
| 1.3 dB @ 50 MHz | 1.5 kW | 73 % |
| 2.4 dB @ 150 MHz | 0.9 kW | 57 % |

Velocity Factor: 66% (0.66)

Minimum Bend Radius: 5"

### *DXE-8U Low-Loss Foam Dielectric Cable*




*Gas-Injected Foam Won't Absorb Water*

- Low-loss, gas-injected foam polyethylene dielectric
- .405" high-flex PVC jacket
- Low-loss foam dielectric
- Braided copper shield

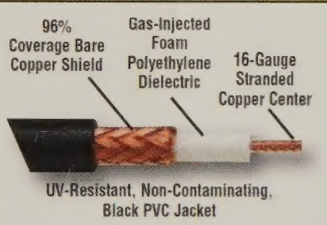
| Attenuation/ 100 ft. | Power Rating | Efficiency % |
|---|---|---|
| 0.3 dB @ 5 MHz | 5.4 kW | 93 % |
| 0.5 dB @ 10 MHz | 4.1 kW | 90 % |
| 0.9 dB @ 30 MHz | 2.2 kW | 81 % |
| 1.2 dB @ 50 MHz | 1.8 kW | 77 % |
| 2.2 dB @ 150 MHz | 1.0 kW | 60 % |

Velocity Factor: 81% (0.81)

Minimum Bend Radius: 6" Repeated Bends, 2.5" Fixed Install

### *DXE-8X Low-Loss Foam Dielectric Cable*

Known as RG-8X or Mini-8




*Gas-Injected Foam Won't Absorb Water*

- Low-loss, gas-injected foam polyethylene dielectric
- Very flexible; ideal for short, in-shack jumper cables
- .242" Type II jacket, non-contaminating and UV-resistant, for outdoor use
- Direct-bury

| Attenuation/ 100 ft. | Power Rating | Efficiency % |
|---|---|---|
| 0.6 dB @ 5 MHz | 3.0 kW | 86 % |
| 0.9 dB @ 10 MHz | 2.2 kW | 81 % |
| 1.4 dB @ 30 MHz | 1.2 kW | 69 % |
| 2.0 dB @ 50 MHz | 0.9 kW | 62 % |
| 3.8 dB @ 150 MHz | 0.4 kW | 42 % |

Velocity Factor: 82% (0.82)

Minimum Bend Radius: 2.4"

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### *ACOM Amplifiers*

Make DX Engineering your source for RF power amplifiers from ACOM—a world leader in RF amplification technology. You'll find a stellar selection of the best ACOM has to offer inside (see pages 46-47), including its acclaimed 2000A, 1000 and 1500. New from ACOM is the user-friendly 1,500 watt 2100, featuring intuitive controls, a powerful tuning aid, automatic input attenuator and the ability to withstand up to 400 watts of reflected power.

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